

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2019 Budget Estimates**

February 2018



**Navy**

*Justification Book Volume 2 of 5*

***Other Procurement, Navy***

**BA 2**

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The estimated cost for this report for the Department of the Navy (DON) is \$54,969.

The estimated total cost for supporting the DON budget justification material is approximately \$1,643,653 for the 2018 fiscal year. This includes \$79,753 in supplies and \$1,563,900 in labor.

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Navy • Budget Estimates FY 2019 • Procurement

**Table of Volumes**

Navy..... Volume 1

Navy..... Volume 2

Navy..... Volume 3

Navy..... Volume 4

Navy..... Volume 5

UNCLASSIFIED

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Navy • Budget Estimates FY 2019 • Procurement

**Volume 2 Table of Contents**

|                                                                             |                  |
|-----------------------------------------------------------------------------|------------------|
| Introduction and Explanation of Contents.....                               | Volume 2 - v     |
| Comptroller Exhibit P-1.....                                                | Volume 2 - vii   |
| Master Line Item Table of Contents (by Appropriation then Line Number)..... | Volume 2 - lix   |
| Master Line Item Table of Contents (Alphabetically by Line Item Title)..... | Volume 2 - lxxix |
| Exhibit P-40s.....                                                          | Volume 2 - 1     |

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## **Department of Defense Appropriations Act, 2019**

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### **Other Procurement, Navy**

For procurement, production, and modernization of support equipment and materials not otherwise provided for, Navy ordnance (except ordnance for new aircraft, new ships, and ships authorized for conversion); the purchase of passenger motor vehicles for replacement only; expansion of public and private plants, including the land necessary therefore, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, \$9,601,528,000, to remain available for obligation until September 30, 2021.

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## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

| Appropriation<br>-----       | FY 2017<br>(Base + OCO)<br>----- | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>----- | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>----- | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>----- |
|------------------------------|----------------------------------|-------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------|
| Other Procurement, Navy      | 6,651,966                        | 6,585,009                                             | 6,210,084                                                        | 251,083                                              |
| Total Department of the Navy | 6,651,966                        | 6,585,009                                             | 6,210,084                                                        | 251,083                                              |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

| Appropriation<br>-----       | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>----- | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>----- | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>----- | FY 2018<br>Remaining Req<br>Emergency<br>----- |
|------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------|
| Other Procurement, Navy      | 251,083                                                         | 25,750                                                   |                                                                                      | 25,750                                         |
| Total Department of the Navy | 251,083                                                         | 25,750                                                   |                                                                                      | 25,750                                         |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

| Appropriation<br>-----       | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>----- | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>----- | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>----- |
|------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Other Procurement, Navy      | 6,461,167                                                                               |                                                                                      | 6,461,167                                                                     |
| Total Department of the Navy | 6,461,167                                                                               |                                                                                      | 6,461,167                                                                     |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

| Appropriation<br>-----       | FY 2019<br>Base<br>----- | FY 2019<br>OCO<br>----- | FY 2019<br>Total<br>----- |
|------------------------------|--------------------------|-------------------------|---------------------------|
| Other Procurement, Navy      | 9,414,355                | 187,173                 | 9,601,528                 |
| Total Department of the Navy | 9,414,355                | 187,173                 | 9,601,528                 |



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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

| Budget Activity<br>-----               | FY 2017<br>(Base + OCO)<br>----- | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>----- | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>----- | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>----- |
|----------------------------------------|----------------------------------|-------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------|
| 01. Ships Support Equipment            | 2,145,022                        | 3,076,818                                             | 2,711,893                                                        | 30,348                                               |
| 02. Communications & Electronics Equip | 2,088,792                        | 2,565,260                                             | 2,555,260                                                        | 62,622                                               |
| 03. Aviation Support Equipment         | 418,972                          | 441,542                                               | 441,542                                                          | 29,245                                               |
| 04. Ordnance Support Equipment         | 1,010,342                        | 929,371                                               | 929,371                                                          | 34,406                                               |
| 05. Civil Engineering Support Equip    | 80,041                           | 99,619                                                | 99,619                                                           | 5,136                                                |
| 06. Supply Support Equipment           | 317,564                          | 510,285                                               | 510,285                                                          | 584                                                  |
| 07. Personnel & Command Support Equip  | 391,606                          | 376,329                                               | 376,329                                                          | 56,540                                               |
| 08. Spares and Repair Parts            | 199,627                          | 278,565                                               | 278,565                                                          | 1,178                                                |
| 20. Undistributed                      |                                  | -1,692,780                                            | -1,692,780                                                       | 31,024                                               |
| Total Other Procurement, Navy          | 6,651,966                        | 6,585,009                                             | 6,210,084                                                        | 251,083                                              |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

| Budget Activity<br>-----               | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>----- | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>----- | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>----- | FY 2018<br>Remaining Req<br>Emergency<br>----- |
|----------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------|
| 01. Ships Support Equipment            | 30,348                                                          |                                                          |                                                                                      |                                                |
| 02. Communications & Electronics Equip | 65,722                                                          | 15,000                                                   |                                                                                      | 15,000                                         |
| 03. Aviation Support Equipment         | 29,245                                                          |                                                          |                                                                                      |                                                |
| 04. Ordnance Support Equipment         | 62,806                                                          |                                                          |                                                                                      |                                                |
| 05. Civil Engineering Support Equip    | 5,136                                                           |                                                          |                                                                                      |                                                |
| 06. Supply Support Equipment           | 584                                                             |                                                          |                                                                                      |                                                |
| 07. Personnel & Command Support Equip  | 56,540                                                          | 10,750                                                   |                                                                                      | 10,750                                         |
| 08. Spares and Repair Parts            | 1,178                                                           |                                                          |                                                                                      |                                                |
| 20. Undistributed                      | -476                                                            |                                                          |                                                                                      |                                                |
| Total Other Procurement, Navy          | 251,083                                                         | 25,750                                                   |                                                                                      | 25,750                                         |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

| Budget Activity<br>-----               | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>----- | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>----- | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>----- |
|----------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 01. Ships Support Equipment            | 2,742,241                                                                               |                                                                                      | 2,742,241                                                                     |
| 02. Communications & Electronics Equip | 2,635,982                                                                               |                                                                                      | 2,635,982                                                                     |
| 03. Aviation Support Equipment         | 470,787                                                                                 |                                                                                      | 470,787                                                                       |
| 04. Ordnance Support Equipment         | 992,177                                                                                 |                                                                                      | 992,177                                                                       |
| 05. Civil Engineering Support Equip    | 104,755                                                                                 |                                                                                      | 104,755                                                                       |
| 06. Supply Support Equipment           | 510,869                                                                                 |                                                                                      | 510,869                                                                       |
| 07. Personnel & Command Support Equip  | 443,619                                                                                 |                                                                                      | 443,619                                                                       |
| 08. Spares and Repair Parts            | 279,743                                                                                 |                                                                                      | 279,743                                                                       |
| 20. Undistributed                      | -1,719,006                                                                              |                                                                                      | -1,719,006                                                                    |
| Total Other Procurement, Navy          | 6,461,167                                                                               |                                                                                      | 6,461,167                                                                     |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

| Budget Activity<br>-----               | FY 2019<br>Base<br>----- | FY 2019<br>OCO<br>----- | FY 2019<br>Total<br>----- |
|----------------------------------------|--------------------------|-------------------------|---------------------------|
| 01. Ships Support Equipment            | 3,180,536                | 28,260                  | 3,208,796                 |
| 02. Communications & Electronics Equip | 3,176,305                | 62,150                  | 3,238,455                 |
| 03. Aviation Support Equipment         | 502,933                  | 21,156                  | 524,089                   |
| 04. Ordnance Support Equipment         | 1,047,675                | 33,580                  | 1,081,255                 |
| 05. Civil Engineering Support Equip    | 112,448                  | 8,638                   | 121,086                   |
| 06. Supply Support Equipment           | 604,532                  | 500                     | 605,032                   |
| 07. Personnel & Command Support Equip  | 463,088                  | 32,889                  | 495,977                   |
| 08. Spares and Repair Parts            | 326,838                  |                         | 326,838                   |
| 20. Undistributed                      |                          |                         |                           |
| Total Other Procurement, Navy          | 9,414,355                | 187,173                 | 9,601,528                 |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                          | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|---------------------------------------------|--------------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| -----                                       | -----                                      | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| Budget Activity 01: Ships Support Equipment |                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| -----                                       |                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| Ship Propulsion Equipment                   |                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| 1                                           | Surface Power Equipment                    | A             | 15,514                                   | 41,910                                                        | 41,910                                                                   |                                                              | U           |
| 2                                           | Hybrid Electric Drive (HED)                |               | 10,983                                   | 6,331                                                         | 6,331                                                                    |                                                              | U           |
| Generators                                  |                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| 3                                           | Surface Combatant HM&E                     | A             | 27,447                                   | 27,392                                                        | 27,392                                                                   |                                                              | U           |
| Navigation Equipment                        |                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| 4                                           | Other Navigation Equipment                 | A             | 62,970                                   | 65,943                                                        | 65,943                                                                   |                                                              | U           |
| Other Shipboard Equipment                   |                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| 5                                           | Sub Periscope, Imaging and Supt Equip Prog | A             | 151,963                                  | 151,240                                                       | 151,240                                                                  |                                                              | U           |
| 6                                           | DDG Mod                                    | A             | 429,614                                  | 603,355                                                       | 603,355                                                                  |                                                              | U           |
| 7                                           | Firefighting Equipment                     | A             | 13,752                                   | 15,887                                                        | 15,887                                                                   |                                                              | U           |
| 8                                           | Command and Control Switchboard            | A             | 2,140                                    | 2,240                                                         | 2,240                                                                    |                                                              | U           |
| 9                                           | LHA/LHD Midlife                            | A             | 22,768                                   | 30,287                                                        | 4,287                                                                    |                                                              | U           |
| 10                                          | Pollution Control Equipment                | B             | 16,510                                   | 17,293                                                        | 17,293                                                                   |                                                              | U           |
| 11                                          | Submarine Support Equipment                | A             | 8,995                                    | 27,990                                                        | 27,990                                                                   |                                                              | U           |
| 12                                          | Virginia Class Support Equipment           | A             | 63,908                                   | 46,610                                                        | 46,610                                                                   |                                                              | U           |
| 13                                          | LCS Class Support Equipment                |               | 43,819                                   | 47,955                                                        | 47,955                                                                   |                                                              | U           |
| 14                                          | Submarine Batteries                        |               | 22,459                                   | 17,594                                                        | 17,594                                                                   |                                                              | U           |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                          | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|---------------------------------------------|--------------------------------------------|---------------|--------------------------------------------------------------------|------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| Budget Activity 01: Ships Support Equipment |                                            |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| Ship Propulsion Equipment                   |                                            |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 1                                           | Surface Power Equipment                    | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 2                                           | Hybrid Electric Drive (HED)                |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Generators                                  |                                            |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 3                                           | Surface Combatant HM&E                     | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Navigation Equipment                        |                                            |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 4                                           | Other Navigation Equipment                 | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Other Shipboard Equipment                   |                                            |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 5                                           | Sub Periscope, Imaging and Supt Equip Prog | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 6                                           | DDG Mod                                    | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 7                                           | Firefighting Equipment                     | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 8                                           | Command and Control Switchboard            | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 9                                           | LHA/LHD Midlife                            | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 10                                          | Pollution Control Equipment                | B             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 11                                          | Submarine Support Equipment                | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 12                                          | Virginia Class Support Equipment           | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 13                                          | LCS Class Support Equipment                |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 14                                          | Submarine Batteries                        |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                          | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|---------------------------------------------|--------------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| ----                                        | -----                                      | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
| Budget Activity 01: Ships Support Equipment |                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| -----                                       |                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| Ship Propulsion Equipment                   |                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 1                                           | Surface Power Equipment                    | A             | 41,910                                                                                          |                                                                                              | 41,910                                                                                | U           |
| 2                                           | Hybrid Electric Drive (HED)                |               | 6,331                                                                                           |                                                                                              | 6,331                                                                                 | U           |
| Generators                                  |                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 3                                           | Surface Combatant HM&E                     | A             | 27,392                                                                                          |                                                                                              | 27,392                                                                                | U           |
| Navigation Equipment                        |                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 4                                           | Other Navigation Equipment                 | A             | 65,943                                                                                          |                                                                                              | 65,943                                                                                | U           |
| Other Shipboard Equipment                   |                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 5                                           | Sub Periscope, Imaging and Supt Equip Prog | A             | 151,240                                                                                         |                                                                                              | 151,240                                                                               | U           |
| 6                                           | DDG Mod                                    | A             | 603,355                                                                                         |                                                                                              | 603,355                                                                               | U           |
| 7                                           | Firefighting Equipment                     | A             | 15,887                                                                                          |                                                                                              | 15,887                                                                                | U           |
| 8                                           | Command and Control Switchboard            | A             | 2,240                                                                                           |                                                                                              | 2,240                                                                                 | U           |
| 9                                           | LHA/LHD Midlife                            | A             | 4,287                                                                                           |                                                                                              | 4,287                                                                                 | U           |
| 10                                          | Pollution Control Equipment                | B             | 17,293                                                                                          |                                                                                              | 17,293                                                                                | U           |
| 11                                          | Submarine Support Equipment                | A             | 27,990                                                                                          |                                                                                              | 27,990                                                                                | U           |
| 12                                          | Virginia Class Support Equipment           | A             | 46,610                                                                                          |                                                                                              | 46,610                                                                                | U           |
| 13                                          | LCS Class Support Equipment                |               | 47,955                                                                                          |                                                                                              | 47,955                                                                                | U           |
| 14                                          | Submarine Batteries                        |               | 17,594                                                                                          |                                                                                              | 17,594                                                                                | U           |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                          | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost    | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|---------------------------------------------|--------------------------------------------|---------------|-----------------------------|---------|----------------------------|------|------------------------------|------|-------------|
| ----                                        | -----                                      | -----         | -----                       | ----    | -----                      | ---- | -----                        | ---- | -           |
| Budget Activity 01: Ships Support Equipment |                                            |               |                             |         |                            |      |                              |      |             |
| -----                                       |                                            |               |                             |         |                            |      |                              |      |             |
| Ship Propulsion Equipment                   |                                            |               |                             |         |                            |      |                              |      |             |
| 1                                           | Surface Power Equipment                    | A             |                             | 19,700  |                            |      | 19,700                       |      | U           |
| 2                                           | Hybrid Electric Drive (HED)                |               |                             |         |                            |      |                              |      | U           |
| Generators                                  |                                            |               |                             |         |                            |      |                              |      |             |
| 3                                           | Surface Combatant HM&E                     | A             |                             | 23,495  |                            |      | 23,495                       |      | U           |
| Navigation Equipment                        |                                            |               |                             |         |                            |      |                              |      |             |
| 4                                           | Other Navigation Equipment                 | A             |                             | 63,330  |                            |      | 63,330                       |      | U           |
| Other Shipboard Equipment                   |                                            |               |                             |         |                            |      |                              |      |             |
| 5                                           | Sub Periscope, Imaging and Supt Equip Prog | A             |                             | 178,421 |                            |      | 178,421                      |      | U           |
| 6                                           | DDG Mod                                    | A             |                             | 487,999 |                            |      | 487,999                      |      | U           |
| 7                                           | Firefighting Equipment                     | A             |                             | 28,143  |                            |      | 28,143                       |      | U           |
| 8                                           | Command and Control Switchboard            | A             |                             | 2,248   |                            |      | 2,248                        |      | U           |
| 9                                           | LHA/LHD Midlife                            | A             |                             | 37,694  |                            |      | 37,694                       |      | U           |
| 10                                          | Pollution Control Equipment                | B             |                             | 20,883  |                            |      | 20,883                       |      | U           |
| 11                                          | Submarine Support Equipment                | A             |                             | 37,155  |                            |      | 37,155                       |      | U           |
| 12                                          | Virginia Class Support Equipment           | A             |                             | 66,328  |                            |      | 66,328                       |      | U           |
| 13                                          | LCS Class Support Equipment                |               |                             | 47,241  |                            |      | 47,241                       |      | U           |
| 14                                          | Submarine Batteries                        |               |                             | 27,987  |                            |      | 27,987                       |      | U           |



## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------|----------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----       | -----                            | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| 15         | LPD Class Support Equipment      |               | 32,052                                   | 61,908                                                        | 61,908                                                                   |                                                              | U           |
| 16         | DDG 1000 Class Support Equipment | A             | 33,404                                   |                                                               |                                                                          |                                                              | U           |
| 17         | Strategic Platform Support Equip | A             | 14,571                                   | 15,812                                                        | 15,812                                                                   |                                                              | U           |
| 18         | DSSP Equipment                   | A             | 806                                      | 4,178                                                         | 4,178                                                                    |                                                              | U           |
| 19         | CG Modernization                 | A             | 319,920                                  | 306,050                                                       | 306,050                                                                  |                                                              | U           |
| 20         | LCAC                             | A             | 3,090                                    | 5,507                                                         | 5,507                                                                    |                                                              | U           |
| 21         | Underwater EOD Programs          |               | 34,650                                   | 55,922                                                        | 55,922                                                                   | 12,348                                                       | U           |
| 22         | Items Less Than \$5 Million      | A             | 65,994                                   | 96,909                                                        | 96,909                                                                   |                                                              | U           |
| 23         | Chemical Warfare Detectors       | A             | 2,873                                    | 3,036                                                         | 3,036                                                                    |                                                              | U           |
| 24         | Submarine Life Support System    | A             | 4,543                                    | 10,364                                                        | 10,364                                                                   |                                                              | U           |
|            | Reactor Plant Equipment          |               |                                          |                                                               |                                                                          |                                                              |             |
| 25         | Reactor Power Units              | A             |                                          | 324,925                                                       |                                                                          |                                                              | U           |
| 26         | Reactor Components               | A             | 342,158                                  | 534,468                                                       | 534,468                                                                  |                                                              | U           |
|            | Ocean Engineering                |               |                                          |                                                               |                                                                          |                                                              |             |
| 27         | Diving and Salvage Equipment     | A             | 8,176                                    | 10,619                                                        | 10,619                                                                   |                                                              | U           |
|            | Small Boats                      |               |                                          |                                                               |                                                                          |                                                              |             |
| 28         | Standard Boats                   | A             | 59,033                                   | 46,094                                                        | 46,094                                                                   | 18,000                                                       | U           |
|            | Production Facilities Equipment  |               |                                          |                                                               |                                                                          |                                                              |             |
| 29         | Operating Forces Ipe             | A             | 71,921                                   | 191,541                                                       | 191,541                                                                  |                                                              | U           |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost   | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|------------|----------------------------------|---------------|--------------------------------------------------------------------|--------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| ----       | -----                            | -----         | -----                                                              | ----   | -----                                                       | ---- | -----                                                                                   | ---- | -----                                             | ---- | -           |
| 15         | LPD Class Support Equipment      |               |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 16         | DDG 1000 Class Support Equipment | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 17         | Strategic Platform Support Equip | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 18         | DSSP Equipment                   | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 19         | CG Modernization                 | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 20         | LCAC                             | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 21         | Underwater EOD Programs          |               |                                                                    | 12,348 |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 22         | Items Less Than \$5 Million      | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 23         | Chemical Warfare Detectors       | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 24         | Submarine Life Support System    | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Reactor Plant Equipment          |               |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      |             |
| 25         | Reactor Power Units              | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 26         | Reactor Components               | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Ocean Engineering                |               |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      |             |
| 27         | Diving and Salvage Equipment     | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Small Boats                      |               |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      |             |
| 28         | Standard Boats                   | A             |                                                                    | 18,000 |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Production Facilities Equipment  |               |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      |             |
| 29         | Operating Forces Ipe             | A             |                                                                    |        |                                                             |      |                                                                                         |      |                                                   |      | U           |

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## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|------------|----------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| ----       | -----                            | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
| 15         | LPD Class Support Equipment      |               | 61,908                                                                                          |                                                                                              | 61,908                                                                                | U           |
| 16         | DDG 1000 Class Support Equipment | A             |                                                                                                 |                                                                                              |                                                                                       | U           |
| 17         | Strategic Platform Support Equip | A             | 15,812                                                                                          |                                                                                              | 15,812                                                                                | U           |
| 18         | DSSP Equipment                   | A             | 4,178                                                                                           |                                                                                              | 4,178                                                                                 | U           |
| 19         | CG Modernization                 | A             | 306,050                                                                                         |                                                                                              | 306,050                                                                               | U           |
| 20         | LCAC                             | A             | 5,507                                                                                           |                                                                                              | 5,507                                                                                 | U           |
| 21         | Underwater EOD Programs          |               | 68,270                                                                                          |                                                                                              | 68,270                                                                                | U           |
| 22         | Items Less Than \$5 Million      | A             | 96,909                                                                                          |                                                                                              | 96,909                                                                                | U           |
| 23         | Chemical Warfare Detectors       | A             | 3,036                                                                                           |                                                                                              | 3,036                                                                                 | U           |
| 24         | Submarine Life Support System    | A             | 10,364                                                                                          |                                                                                              | 10,364                                                                                | U           |
|            | Reactor Plant Equipment          |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 25         | Reactor Power Units              | A             |                                                                                                 |                                                                                              |                                                                                       | U           |
| 26         | Reactor Components               | A             | 534,468                                                                                         |                                                                                              | 534,468                                                                               | U           |
|            | Ocean Engineering                |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 27         | Diving and Salvage Equipment     | A             | 10,619                                                                                          |                                                                                              | 10,619                                                                                | U           |
|            | Small Boats                      |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 28         | Standard Boats                   | A             | 64,094                                                                                          |                                                                                              | 64,094                                                                                | U           |
|            | Production Facilities Equipment  |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 29         | Operating Forces Ipe             | A             | 191,541                                                                                         |                                                                                              | 191,541                                                                               | U           |

UNCLASSIFIED

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost    | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|------------|----------------------------------|---------------|-----------------------------|---------|----------------------------|------|------------------------------|------|-------------|
| ----       | -----                            | -----         | -----                       | ----    | -----                      | ---- | -----                        | ---- | -           |
| 15         | LPD Class Support Equipment      |               |                             | 65,033  |                            |      | 65,033                       |      | U           |
| 16         | DDG 1000 Class Support Equipment | A             |                             | 89,700  |                            |      | 89,700                       |      | U           |
| 17         | Strategic Platform Support Equip | A             |                             | 22,254  |                            |      | 22,254                       |      | U           |
| 18         | DSSP Equipment                   | A             |                             | 3,629   |                            |      | 3,629                        |      | U           |
| 19         | CG Modernization                 | A             |                             | 276,446 |                            |      | 276,446                      |      | U           |
| 20         | LCAC                             | A             |                             | 3,709   |                            |      | 3,709                        |      | U           |
| 21         | Underwater EOD Programs          |               |                             | 78,807  | 9,200                      |      | 88,007                       |      | U           |
| 22         | Items Less Than \$5 Million      | A             |                             | 126,865 |                            |      | 126,865                      |      | U           |
| 23         | Chemical Warfare Detectors       | A             |                             | 2,966   |                            |      | 2,966                        |      | U           |
| 24         | Submarine Life Support System    | A             |                             | 11,968  |                            |      | 11,968                       |      | U           |
|            | Reactor Plant Equipment          |               |                             |         |                            |      |                              |      |             |
| 25         | Reactor Power Units              | A             |                             | 346,325 |                            |      | 346,325                      |      | U           |
| 26         | Reactor Components               | A             |                             | 497,063 |                            |      | 497,063                      |      | U           |
|            | Ocean Engineering                |               |                             |         |                            |      |                              |      |             |
| 27         | Diving and Salvage Equipment     | A             |                             | 10,706  |                            |      | 10,706                       |      | U           |
|            | Small Boats                      |               |                             |         |                            |      |                              |      |             |
| 28         | Standard Boats                   | A             |                             | 49,771  | 19,060                     |      | 68,831                       |      | U           |
|            | Production Facilities Equipment  |               |                             |         |                            |      |                              |      |             |
| 29         | Operating Forces Ipe             | A             |                             | 225,181 |                            |      | 225,181                      |      | U           |

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## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                                      | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------|--------------------------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----       | -----                                                  | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
|            | Other Ship Support                                     |               |                                          |                                                               |                                                                          |                                                              |             |
| 30         | Nuclear Alterations                                    | A             | 172,718                                  |                                                               |                                                                          |                                                              | U           |
| 31         | LCS Common Mission Modules Equipment                   |               | 14,670                                   | 34,666                                                        | 34,666                                                                   |                                                              | U           |
| 32         | LCS MCM Mission Modules                                |               | 29,724                                   | 55,870                                                        | 55,870                                                                   |                                                              | U           |
| 33         | LCS ASW Mission Modules                                |               |                                          |                                                               |                                                                          |                                                              | U           |
| 34         | LCS SUW Mission Modules                                |               | 21,064                                   | 52,960                                                        | 52,960                                                                   |                                                              | U           |
| 35         | LCS In-Service Modernization                           | A             |                                          | 74,426                                                        | 74,426                                                                   |                                                              | U           |
|            | Logistic Support                                       |               |                                          |                                                               |                                                                          |                                                              |             |
| 36         | LSD Midlife & Modernization                            |               | 20,813                                   | 89,536                                                        | 75,536                                                                   |                                                              | U           |
|            | Total Ships Support Equipment                          |               | 2,145,022                                | 3,076,818                                                     | 2,711,893                                                                | 30,348                                                       |             |
|            | Budget Activity 02: Communications & Electronics Equip |               |                                          |                                                               |                                                                          |                                                              |             |
|            | Ship Sonars                                            |               |                                          |                                                               |                                                                          |                                                              |             |
| 37         | SPQ-9B Radar                                           | A             | 10,376                                   | 30,086                                                        | 20,086                                                                   |                                                              | U           |
| 38         | AN/SQQ-89 Surf ASW Combat System                       | A             | 87,824                                   | 102,222                                                       | 102,222                                                                  |                                                              | U           |
| 39         | SSN Acoustic Equipment                                 | A             | 288,265                                  | 287,553                                                       | 287,553                                                                  | 43,500                                                       | U           |
| 40         | Undersea Warfare Support Equipment                     | A             | 7,163                                    | 13,653                                                        | 13,653                                                                   |                                                              | U           |
|            | ASW Electronic Equipment                               |               |                                          |                                                               |                                                                          |                                                              |             |
| 41         | Submarine Acoustic Warfare System                      | A             | 21,291                                   | 21,449                                                        | 21,449                                                                   |                                                              | U           |
| 42         | SSTD                                                   | A             | 6,893                                    | 12,867                                                        | 12,867                                                                   |                                                              | U           |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                             | Item Nomenclature                    | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO |        | FY 2018<br>Emergency<br>Requests**<br>Emergency |      | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs |      | FY 2018<br>Remaining Req<br>Emergency |      | S<br>e<br>c |
|--------------------------------------------------------|--------------------------------------|---------------|--------------------------------------------------------|--------|-------------------------------------------------|------|-----------------------------------------------------------------------------|------|---------------------------------------|------|-------------|
|                                                        |                                      |               | Quantity                                               | Cost   | Quantity                                        | Cost | Quantity                                                                    | Cost | Quantity                              | Cost |             |
| Other Ship Support                                     |                                      |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      |             |
| 30                                                     | Nuclear Alterations                  | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 31                                                     | LCS Common Mission Modules Equipment |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 32                                                     | LCS MCM Mission Modules              |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 33                                                     | LCS ASW Mission Modules              |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 34                                                     | LCS SUW Mission Modules              |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 35                                                     | LCS In-Service Modernization         | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| Logistic Support                                       |                                      |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      |             |
| 36                                                     | LSD Midlife & Modernization          |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| Total Ships Support Equipment                          |                                      |               |                                                        | 30,348 |                                                 |      |                                                                             |      |                                       |      |             |
| Budget Activity 02: Communications & Electronics Equip |                                      |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      |             |
| Ship Sonars                                            |                                      |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      |             |
| 37                                                     | SPQ-9B Radar                         | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 38                                                     | AN/SQQ-89 Surf ASW Combat System     | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 39                                                     | SSN Acoustic Equipment               | A             |                                                        | 43,500 |                                                 |      |                                                                             |      |                                       |      | U           |
| 40                                                     | Undersea Warfare Support Equipment   | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| ASW Electronic Equipment                               |                                      |               |                                                        |        |                                                 |      |                                                                             |      |                                       |      |             |
| 41                                                     | Submarine Acoustic Warfare System    | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |
| 42                                                     | SSTD                                 | A             |                                                        |        |                                                 |      |                                                                             |      |                                       |      | U           |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                                      | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|------------|--------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| ----       | -----                                                  | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
|            | Other Ship Support                                     |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 30         | Nuclear Alterations                                    | A             |                                                                                                 |                                                                                              |                                                                                       | U           |
| 31         | LCS Common Mission Modules Equipment                   |               | 34,666                                                                                          |                                                                                              | 34,666                                                                                | U           |
| 32         | LCS MCM Mission Modules                                |               | 55,870                                                                                          |                                                                                              | 55,870                                                                                | U           |
| 33         | LCS ASW Mission Modules                                |               |                                                                                                 |                                                                                              |                                                                                       | U           |
| 34         | LCS SUW Mission Modules                                |               | 52,960                                                                                          |                                                                                              | 52,960                                                                                | U           |
| 35         | LCS In-Service Modernization                           | A             | 74,426                                                                                          |                                                                                              | 74,426                                                                                | U           |
|            | Logistic Support                                       |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 36         | LSD Midlife & Modernization                            |               | 75,536                                                                                          |                                                                                              | 75,536                                                                                | U           |
|            | Total Ships Support Equipment                          |               | 2,742,241                                                                                       |                                                                                              | 2,742,241                                                                             |             |
|            | Budget Activity 02: Communications & Electronics Equip |               |                                                                                                 |                                                                                              |                                                                                       |             |
|            | Ship Sonars                                            |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 37         | SPQ-9B Radar                                           | A             | 20,086                                                                                          |                                                                                              | 20,086                                                                                | U           |
| 38         | AN/SQQ-89 Surf ASW Combat System                       | A             | 102,222                                                                                         |                                                                                              | 102,222                                                                               | U           |
| 39         | SSN Acoustic Equipment                                 | A             | 331,053                                                                                         |                                                                                              | 331,053                                                                               | U           |
| 40         | Undersea Warfare Support Equipment                     | A             | 13,653                                                                                          |                                                                                              | 13,653                                                                                | U           |
|            | ASW Electronic Equipment                               |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 41         | Submarine Acoustic Warfare System                      | A             | 21,449                                                                                          |                                                                                              | 21,449                                                                                | U           |
| 42         | SSTD                                                   | A             | 12,867                                                                                          |                                                                                              | 12,867                                                                                | U           |

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## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                             | Item Nomenclature                    | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost      | FY 2019<br>OCO<br>Quantity | Cost   | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|--------------------------------------------------------|--------------------------------------|---------------|-----------------------------|-----------|----------------------------|--------|------------------------------|------|-------------|
| ----                                                   | -----                                | -----         | -----                       | ----      | -----                      | ----   | -----                        | ---- | -           |
| Other Ship Support                                     |                                      |               |                             |           |                            |        |                              |      |             |
| 30                                                     | Nuclear Alterations                  | A             |                             |           |                            |        |                              |      | U           |
| 31                                                     | LCS Common Mission Modules Equipment |               |                             | 46,732    |                            |        | 46,732                       |      | U           |
| 32                                                     | LCS MCM Mission Modules              |               |                             | 124,147   |                            |        | 124,147                      |      | U           |
| 33                                                     | LCS ASW Mission Modules              |               |                             | 57,294    |                            |        | 57,294                       |      | U           |
| 34                                                     | LCS SUW Mission Modules              |               |                             | 26,006    |                            |        | 26,006                       |      | U           |
| 35                                                     | LCS In-Service Modernization         | A             |                             | 70,526    |                            |        | 70,526                       |      | U           |
| Logistic Support                                       |                                      |               |                             |           |                            |        |                              |      |             |
| 36                                                     | LSD Midlife & Modernization          |               |                             | 4,784     |                            |        | 4,784                        |      | U           |
| Total Ships Support Equipment                          |                                      |               |                             | 3,180,536 |                            | 28,260 | 3,208,796                    |      |             |
| Budget Activity 02: Communications & Electronics Equip |                                      |               |                             |           |                            |        |                              |      |             |
| -----                                                  |                                      |               |                             |           |                            |        |                              |      |             |
| Ship Sonars                                            |                                      |               |                             |           |                            |        |                              |      |             |
| 37                                                     | SPQ-9B Radar                         | A             |                             | 20,309    |                            |        | 20,309                       |      | U           |
| 38                                                     | AN/SQQ-89 Surf ASW Combat System     | A             |                             | 115,459   |                            |        | 115,459                      |      | U           |
| 39                                                     | SSN Acoustic Equipment               | A             |                             | 318,189   |                            |        | 318,189                      |      | U           |
| 40                                                     | Undersea Warfare Support Equipment   | A             |                             | 10,134    |                            |        | 10,134                       |      | U           |
| ASW Electronic Equipment                               |                                      |               |                             |           |                            |        |                              |      |             |
| 41                                                     | Submarine Acoustic Warfare System    | A             |                             | 23,815    |                            |        | 23,815                       |      | U           |
| 42                                                     | SSTD                                 | A             |                             | 11,277    |                            |        | 11,277                       |      | U           |

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## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----       | -----                                         | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| 43         | Fixed Surveillance System                     | A             | 145,701                                  | 300,102                                                       | 300,102                                                                  |                                                              | U           |
| 44         | SURTASS                                       | A             | 43,743                                   | 30,180                                                        | 30,180                                                                   |                                                              | U           |
|            | Electronic Warfare Equipment                  |               |                                          |                                                               |                                                                          |                                                              |             |
| 45         | AN/SLQ-32                                     | A             | 244,001                                  | 240,433                                                       | 240,433                                                                  |                                                              | U           |
|            | Reconnaissance Equipment                      |               |                                          |                                                               |                                                                          |                                                              |             |
| 46         | Shipboard IW Exploit                          | A             | 169,021                                  | 187,007                                                       | 187,007                                                                  |                                                              | U           |
| 47         | Automated Identification System (AIS)         |               | 764                                      | 510                                                           | 510                                                                      |                                                              | U           |
|            | Other Ship Electronic Equipment               |               |                                          |                                                               |                                                                          |                                                              |             |
| 48         | Cooperative Engagement Capability             | B             | 17,965                                   | 23,892                                                        | 23,892                                                                   |                                                              | U           |
| 49         | Naval Tactical Command Support System (NTCSS) | A             | 12,336                                   | 10,741                                                        | 10,741                                                                   |                                                              | U           |
| 50         | ATDLS                                         | A             | 24,395                                   | 38,016                                                        | 38,016                                                                   |                                                              | U           |
| 51         | Navy Command and Control System (NCCS)        |               | 4,556                                    | 4,512                                                         | 4,512                                                                    |                                                              | U           |
| 52         | Minesweeping System Replacement               | A             | 26,764                                   | 31,531                                                        | 31,531                                                                   |                                                              | U           |
| 53         | Shallow Water MCM                             | B             | 8,875                                    | 8,796                                                         | 8,796                                                                    |                                                              | U           |
| 54         | Navstar GPS Receivers (SPACE)                 | A             | 7,102                                    | 15,923                                                        | 15,923                                                                   |                                                              | U           |
| 55         | American Forces Radio and TV Service          | A             | 4,577                                    | 2,730                                                         | 2,730                                                                    |                                                              | U           |
| 56         | Strategic Platform Support Equip              | A             | 8,972                                    | 6,889                                                         | 6,889                                                                    |                                                              | U           |
|            | Aviation Electronic Equipment                 |               |                                          |                                                               |                                                                          |                                                              |             |
| 57         | Ashore ATC Equipment                          | A             | 68,392                                   | 71,882                                                        | 71,882                                                                   |                                                              | U           |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|--------------------------------------------------------------------|------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| ----       | -----                                         | -----         | -----                                                              | ---- | -----                                                       | ---- | -----                                                                                   | ---- | -----                                             | ---- | -           |
| 43         | Fixed Surveillance System                     | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 44         | SURTASS                                       | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Electronic Warfare Equipment                  |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 45         | AN/SLQ-32                                     | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Reconnaissance Equipment                      |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 46         | Shipboard IW Exploit                          | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 47         | Automated Identification System (AIS)         |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Other Ship Electronic Equipment               |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 48         | Cooperative Engagement Capability             | B             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 49         | Naval Tactical Command Support System (NTCSS) | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 50         | ATDLS                                         | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 51         | Navy Command and Control System (NCCS)        |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 52         | Minesweeping System Replacement               | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 53         | Shallow Water MCM                             | B             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 54         | Navstar GPS Receivers (SPACE)                 | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 55         | American Forces Radio and TV Service          | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 56         | Strategic Platform Support Equip              | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Aviation Electronic Equipment                 |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 57         | Ashore ATC Equipment                          | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity | Cost    | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|--------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------|------|-------------|
| ----       | -----                                         | -----         | -----                                                                                      | ----    | -----                                                                                   | ---- | -----                                                                            | ---- | -           |
| 43         | Fixed Surveillance System                     | A             |                                                                                            | 300,102 |                                                                                         |      | 300,102                                                                          |      | U           |
| 44         | SURTASS                                       | A             |                                                                                            | 30,180  |                                                                                         |      | 30,180                                                                           |      | U           |
|            | Electronic Warfare Equipment                  |               |                                                                                            |         |                                                                                         |      |                                                                                  |      |             |
| 45         | AN/SLQ-32                                     | A             |                                                                                            | 240,433 |                                                                                         |      | 240,433                                                                          |      | U           |
|            | Reconnaissance Equipment                      |               |                                                                                            |         |                                                                                         |      |                                                                                  |      |             |
| 46         | Shipboard IW Exploit                          | A             |                                                                                            | 187,007 |                                                                                         |      | 187,007                                                                          |      | U           |
| 47         | Automated Identification System (AIS)         |               |                                                                                            | 510     |                                                                                         |      | 510                                                                              |      | U           |
|            | Other Ship Electronic Equipment               |               |                                                                                            |         |                                                                                         |      |                                                                                  |      |             |
| 48         | Cooperative Engagement Capability             | B             |                                                                                            | 23,892  |                                                                                         |      | 23,892                                                                           |      | U           |
| 49         | Naval Tactical Command Support System (NTCSS) | A             |                                                                                            | 10,741  |                                                                                         |      | 10,741                                                                           |      | U           |
| 50         | ATDLS                                         | A             |                                                                                            | 38,016  |                                                                                         |      | 38,016                                                                           |      | U           |
| 51         | Navy Command and Control System (NCCS)        |               |                                                                                            | 4,512   |                                                                                         |      | 4,512                                                                            |      | U           |
| 52         | Minesweeping System Replacement               | A             |                                                                                            | 31,531  |                                                                                         |      | 31,531                                                                           |      | U           |
| 53         | Shallow Water MCM                             | B             |                                                                                            | 8,796   |                                                                                         |      | 8,796                                                                            |      | U           |
| 54         | Navstar GPS Receivers (SPACE)                 | A             |                                                                                            | 15,923  |                                                                                         |      | 15,923                                                                           |      | U           |
| 55         | American Forces Radio and TV Service          | A             |                                                                                            | 2,730   |                                                                                         |      | 2,730                                                                            |      | U           |
| 56         | Strategic Platform Support Equip              | A             |                                                                                            | 6,889   |                                                                                         |      | 6,889                                                                            |      | U           |
|            | Aviation Electronic Equipment                 |               |                                                                                            |         |                                                                                         |      |                                                                                  |      |             |
| 57         | Ashore ATC Equipment                          | A             |                                                                                            | 71,882  |                                                                                         |      | 71,882                                                                           |      | U           |

UNCLASSIFIED

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost    | FY 2019<br>OCO<br>Quantity | Cost   | FY 2019<br>Total<br>Quantity | Cost    | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|-----------------------------|---------|----------------------------|--------|------------------------------|---------|-------------|
| ----       | -----                                         | -----         | -----                       | ----    | -----                      | ----   | -----                        | ----    | -           |
| 43         | Fixed Surveillance System                     | A             |                             | 237,780 |                            | 56,950 |                              | 294,730 | U           |
| 44         | SURTASS                                       | A             |                             | 57,872  |                            |        |                              | 57,872  | U           |
|            | Electronic Warfare Equipment                  |               |                             |         |                            |        |                              |         |             |
| 45         | AN/SLQ-32                                     | A             |                             | 420,344 |                            |        |                              | 420,344 | U           |
|            | Reconnaissance Equipment                      |               |                             |         |                            |        |                              |         |             |
| 46         | Shipboard IW Exploit                          | A             |                             | 220,883 |                            |        |                              | 220,883 | U           |
| 47         | Automated Identification System (AIS)         |               |                             | 4,028   |                            |        |                              | 4,028   | U           |
|            | Other Ship Electronic Equipment               |               |                             |         |                            |        |                              |         |             |
| 48         | Cooperative Engagement Capability             | B             |                             | 44,173  |                            |        |                              | 44,173  | U           |
| 49         | Naval Tactical Command Support System (NTCSS) | A             |                             | 10,991  |                            |        |                              | 10,991  | U           |
| 50         | ATDLS                                         | A             |                             | 34,526  |                            |        |                              | 34,526  | U           |
| 51         | Navy Command and Control System (NCCS)        |               |                             | 3,769   |                            |        |                              | 3,769   | U           |
| 52         | Minesweeping System Replacement               | A             |                             | 35,709  |                            |        |                              | 35,709  | U           |
| 53         | Shallow Water MCM                             | B             |                             | 8,616   |                            |        |                              | 8,616   | U           |
| 54         | Navstar GPS Receivers (SPACE)                 | A             |                             | 10,703  |                            |        |                              | 10,703  | U           |
| 55         | American Forces Radio and TV Service          | A             |                             | 2,626   |                            |        |                              | 2,626   | U           |
| 56         | Strategic Platform Support Equip              | A             |                             | 9,467   |                            |        |                              | 9,467   | U           |
|            | Aviation Electronic Equipment                 |               |                             |         |                            |        |                              |         |             |
| 57         | Ashore ATC Equipment                          | A             |                             | 70,849  |                            |        |                              | 70,849  | U           |

UNCLASSIFIED

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----       | -----                                         | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| 58         | Afloat ATC Equipment                          | A             | 29,411                                   | 44,611                                                        | 44,611                                                                   |                                                              | U           |
| 59         | ID Systems                                    | A             | 22,177                                   | 21,239                                                        | 21,239                                                                   |                                                              | U           |
| 60         | Joint Precision Approach And Landing System ( |               |                                          |                                                               |                                                                          |                                                              | U           |
| 61         | Naval Mission Planning Systems                | A             | 13,910                                   | 11,976                                                        | 11,976                                                                   | 2,550                                                        | U           |
|            | Other Shore Electronic Equipment              |               |                                          |                                                               |                                                                          |                                                              |             |
| 62         | Tactical/Mobile C4I Systems                   | A             | 23,908                                   | 32,425                                                        | 32,425                                                                   | 7,900                                                        | U           |
| 63         | DCGS-N                                        | A             | 23,610                                   | 13,790                                                        | 13,790                                                                   | 6,392                                                        | U           |
| 64         | CANES                                         |               | 207,730                                  | 322,754                                                       | 322,754                                                                  |                                                              | U           |
| 65         | RADIAC                                        | A             | 8,092                                    | 10,718                                                        | 10,718                                                                   |                                                              | U           |
| 66         | CANES-Intell                                  |               | 35,313                                   | 48,028                                                        | 48,028                                                                   |                                                              | U           |
| 67         | GPETE                                         | A             | 6,428                                    | 6,861                                                         | 6,861                                                                    |                                                              | U           |
| 68         | MASF                                          |               |                                          | 8,081                                                         | 8,081                                                                    |                                                              | U           |
| 69         | Integ Combat System Test Facility             | A             | 8,376                                    | 5,019                                                         | 5,019                                                                    |                                                              | U           |
| 70         | EMI Control Instrumentation                   | A             | 3,971                                    | 4,188                                                         | 4,188                                                                    |                                                              | U           |
| 71         | Items Less Than \$5 Million                   | A             | 47,664                                   | 105,292                                                       | 105,292                                                                  |                                                              | U           |
|            | Shipboard Communications                      |               |                                          |                                                               |                                                                          |                                                              |             |
| 72         | Shipboard Tactical Communications             | A             | 9,671                                    | 23,695                                                        | 23,695                                                                   |                                                              | U           |
| 73         | Ship Communications Automation                | A             | 109,191                                  | 103,990                                                       | 103,990                                                                  |                                                              | U           |
| 74         | Communications Items Under \$5M               | A             | 10,077                                   | 18,577                                                        | 18,577                                                                   |                                                              | U           |

UNCLASSIFIED

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost  | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|--------------------------------------------------------------------|-------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| ----       | -----                                         | -----         | -----                                                              | ----  | -----                                                       | ---- | -----                                                                                   | ---- | -----                                             | ---- | -           |
| 58         | Afloat ATC Equipment                          | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 59         | ID Systems                                    | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 60         | Joint Precision Approach And Landing System ( |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 61         | Naval Mission Planning Systems                | A             |                                                                    | 2,550 |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Other Shore Electronic Equipment              |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 62         | Tactical/Mobile C4I Systems                   | A             |                                                                    | 7,900 |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 63         | DCGS-N                                        | A             |                                                                    | 6,392 |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 64         | CANES                                         |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 65         | RADIAC                                        | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 66         | CANES-Intell                                  |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 67         | GPETE                                         | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 68         | MASF                                          |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 69         | Integ Combat System Test Facility             | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 70         | EMI Control Instrumentation                   | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 71         | Items Less Than \$5 Million                   | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
|            | Shipboard Communications                      |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 72         | Shipboard Tactical Communications             | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 73         | Ship Communications Automation                | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 74         | Communications Items Under \$5M               | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| ----       | -----                                         | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
| 58         | Afloat ATC Equipment                          | A             | 44,611                                                                                          |                                                                                              | 44,611                                                                                | U           |
| 59         | ID Systems                                    | A             | 21,239                                                                                          |                                                                                              | 21,239                                                                                | U           |
| 60         | Joint Precision Approach And Landing System ( |               |                                                                                                 |                                                                                              |                                                                                       | U           |
| 61         | Naval Mission Planning Systems                | A             | 14,526                                                                                          |                                                                                              | 14,526                                                                                | U           |
|            | Other Shore Electronic Equipment              |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 62         | Tactical/Mobile C4I Systems                   | A             | 40,325                                                                                          |                                                                                              | 40,325                                                                                | U           |
| 63         | DCGS-N                                        | A             | 20,182                                                                                          |                                                                                              | 20,182                                                                                | U           |
| 64         | CANES                                         |               | 322,754                                                                                         |                                                                                              | 322,754                                                                               | U           |
| 65         | RADIAC                                        | A             | 10,718                                                                                          |                                                                                              | 10,718                                                                                | U           |
| 66         | CANES-Intell                                  |               | 48,028                                                                                          |                                                                                              | 48,028                                                                                | U           |
| 67         | GPETE                                         | A             | 6,861                                                                                           |                                                                                              | 6,861                                                                                 | U           |
| 68         | MASF                                          |               | 8,081                                                                                           |                                                                                              | 8,081                                                                                 | U           |
| 69         | Integ Combat System Test Facility             | A             | 5,019                                                                                           |                                                                                              | 5,019                                                                                 | U           |
| 70         | EMI Control Instrumentation                   | A             | 4,188                                                                                           |                                                                                              | 4,188                                                                                 | U           |
| 71         | Items Less Than \$5 Million                   | A             | 105,292                                                                                         |                                                                                              | 105,292                                                                               | U           |
|            | Shipboard Communications                      |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 72         | Shipboard Tactical Communications             | A             | 23,695                                                                                          |                                                                                              | 23,695                                                                                | U           |
| 73         | Ship Communications Automation                | A             | 103,990                                                                                         |                                                                                              | 103,990                                                                               | U           |
| 74         | Communications Items Under \$5M               | A             | 18,577                                                                                          |                                                                                              | 18,577                                                                                | U           |

UNCLASSIFIED

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                             | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost    | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|------------|-----------------------------------------------|---------------|-----------------------------|---------|----------------------------|------|------------------------------|------|-------------|
| ----       | -----                                         | -----         | -----                       | ----    | -----                      | ---- | -----                        | ---- | -           |
| 58         | Afloat ATC Equipment                          | A             |                             | 47,890  |                            |      | 47,890                       |      | U           |
| 59         | ID Systems                                    | A             |                             | 26,163  |                            |      | 26,163                       |      | U           |
| 60         | Joint Precision Approach And Landing System ( |               |                             | 38,094  |                            |      | 38,094                       |      | U           |
| 61         | Naval Mission Planning Systems                | A             |                             | 11,966  |                            |      | 11,966                       |      | U           |
|            | Other Shore Electronic Equipment              |               |                             |         |                            |      |                              |      |             |
| 62         | Tactical/Mobile C4I Systems                   | A             |                             | 42,010  |                            |      | 42,010                       |      | U           |
| 63         | DCGS-N                                        | A             |                             | 12,896  |                            |      | 12,896                       |      | U           |
| 64         | CANES                                         |               |                             | 423,027 |                            |      | 423,027                      |      | U           |
| 65         | RADIAC                                        | A             |                             | 8,175   |                            |      | 8,175                        |      | U           |
| 66         | CANES-Intell                                  |               |                             | 54,465  |                            |      | 54,465                       |      | U           |
| 67         | GPETE                                         | A             |                             | 5,985   |                            |      | 5,985                        |      | U           |
| 68         | MASF                                          |               |                             | 5,413   |                            |      | 5,413                        |      | U           |
| 69         | Integ Combat System Test Facility             | A             |                             | 6,251   |                            |      | 6,251                        |      | U           |
| 70         | EMI Control Instrumentation                   | A             |                             | 4,183   |                            |      | 4,183                        |      | U           |
| 71         | Items Less Than \$5 Million                   | A             |                             | 148,350 |                            |      | 148,350                      |      | U           |
|            | Shipboard Communications                      |               |                             |         |                            |      |                              |      |             |
| 72         | Shipboard Tactical Communications             | A             |                             | 45,450  |                            |      | 45,450                       |      | U           |
| 73         | Ship Communications Automation                | A             |                             | 105,087 |                            |      | 105,087                      |      | U           |
| 74         | Communications Items Under \$5M               | A             |                             | 41,123  |                            |      | 41,123                       |      | U           |

UNCLASSIFIED



## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                           | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------|---------------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----       | -----                                       | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
|            | Submarine Communications                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 75         | Submarine Broadcast Support                 | A             | 31,068                                   | 29,669                                                        | 29,669                                                                   |                                                              | U           |
| 76         | Submarine Communication Equipment           | A             | 62,305                                   | 86,204                                                        | 86,204                                                                   |                                                              | U           |
|            | Satellite Communications                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 77         | Satellite Communications Systems            | A             | 14,414                                   | 14,654                                                        | 14,654                                                                   |                                                              | U           |
| 78         | Navy Multiband Terminal (NMT)               |               | 33,992                                   | 69,764                                                        | 69,764                                                                   |                                                              | U           |
|            | Shore Communications                        |               |                                          |                                                               |                                                                          |                                                              |             |
| 79         | Joint Communications Support Element (JCSE) | A             | 4,156                                    | 4,256                                                         | 4,256                                                                    |                                                              | U           |
|            | Cryptographic Equipment                     |               |                                          |                                                               |                                                                          |                                                              |             |
| 80         | Info Systems Security Program (ISSP)        | A             | 92,454                                   | 89,663                                                        | 89,663                                                                   |                                                              | U           |
| 81         | MIO Intel Exploitation Team                 | A             | 920                                      | 961                                                           | 961                                                                      |                                                              | U           |
|            | Cryptologic Equipment                       |               |                                          |                                                               |                                                                          |                                                              |             |
| 82         | Cryptologic Communications Equip            | A             | 23,698                                   | 11,287                                                        | 11,287                                                                   | 2,280                                                        | U           |
|            | Other Electronic Support                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 83         | DON UAS 1***                                | A             | 2,517                                    |                                                               |                                                                          |                                                              | U           |
| 84         | DON UAS 2***                                | A             | 4,927                                    |                                                               |                                                                          |                                                              | U           |
| 85         | DON ACTS***                                 | A             | 1,545                                    |                                                               |                                                                          |                                                              | U           |
| 86         | Coast Guard Equipment                       | A             | 32,291                                   | 36,584                                                        | 36,584                                                                   |                                                              | U           |

\*\*\*Funding in this line item was transferred during the year of execution from the Spectrum Relocation Fund (SRF) in support of the Advanced Wireless Services 3 (AWS-3) auction and is associated with the reallocation or sharing of the 1755-1780 MHz and 1695-1710 MHz bands. The SRF is administered by the Office of Management and Budget (OMB), which approves SRF transfers to federal agencies on an annual basis in consultation with the National Telecommunications and Information Administration (NTIA).

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No               | Item Nomenclature                           | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost  | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|--------------------------|---------------------------------------------|---------------|--------------------------------------------------------------------|-------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| Submarine Communications |                                             |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 75                       | Submarine Broadcast Support                 | A             |                                                                    |       | 15,000                                                      |      |                                                                                         |      | 15,000                                            |      | U           |
| 76                       | Submarine Communication Equipment           | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Satellite Communications |                                             |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 77                       | Satellite Communications Systems            | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 78                       | Navy Multiband Terminal (NMT)               |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Shore Communications     |                                             |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 79                       | Joint Communications Support Element (JCSE) | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Cryptographic Equipment  |                                             |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 80                       | Info Systems Security Program (ISSP)        | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 81                       | MIO Intel Exploitation Team                 | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Cryptologic Equipment    |                                             |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 82                       | Cryptologic Communications Equip            | A             |                                                                    | 5,380 |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Other Electronic Support |                                             |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 83                       | DON UAS 1***                                | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 84                       | DON UAS 2***                                | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 85                       | DON ACTS***                                 | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 86                       | Coast Guard Equipment                       | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |

\*\*\*Funding in this line item was transferred during the year of execution from the Spectrum Relocation Fund (SRF) in support of the Advanced Wireless Services 3 (AWS-3) auction and is associated with the reallocation or sharing of the 1755-1780 MHz and 1695-1710 MHz bands. The SRF is administered by the Office of Management and Budget (OMB), which approves SRF transfers to federal agencies on an annual basis in consultation with the National Telecommunications and Information Administration (NTIA).

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No               | Item Nomenclature                           | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c<br>- |
|--------------------------|---------------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------|
| Submarine Communications |                                             |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 75                       | Submarine Broadcast Support                 | A             | 44,669                                                                                          |                                                                                              | 44,669                                                                                | U                |
| 76                       | Submarine Communication Equipment           | A             | 86,204                                                                                          |                                                                                              | 86,204                                                                                | U                |
| Satellite Communications |                                             |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 77                       | Satellite Communications Systems            | A             | 14,654                                                                                          |                                                                                              | 14,654                                                                                | U                |
| 78                       | Navy Multiband Terminal (NMT)               |               | 69,764                                                                                          |                                                                                              | 69,764                                                                                | U                |
| Shore Communications     |                                             |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 79                       | Joint Communications Support Element (JCSE) | A             | 4,256                                                                                           |                                                                                              | 4,256                                                                                 | U                |
| Cryptographic Equipment  |                                             |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 80                       | Info Systems Security Program (ISSP)        | A             | 89,663                                                                                          |                                                                                              | 89,663                                                                                | U                |
| 81                       | MIO Intel Exploitation Team                 | A             | 961                                                                                             |                                                                                              | 961                                                                                   | U                |
| Cryptologic Equipment    |                                             |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 82                       | Cryptologic Communications Equip            | A             | 16,667                                                                                          |                                                                                              | 16,667                                                                                | U                |
| Other Electronic Support |                                             |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 83                       | DON UAS 1***                                | A             |                                                                                                 |                                                                                              |                                                                                       | U                |
| 84                       | DON UAS 2***                                | A             |                                                                                                 |                                                                                              |                                                                                       | U                |
| 85                       | DON ACTS***                                 | A             |                                                                                                 |                                                                                              |                                                                                       | U                |
| 86                       | Coast Guard Equipment                       | A             | 36,584                                                                                          |                                                                                              | 36,584                                                                                | U                |

\*\*\*Funding in this line item was transferred during the year of execution from the Spectrum Relocation Fund (SRF) in support of the Advanced Wireless Services 3 (AWS-3) auction and is associated with the reallocation or sharing of the 1755-1780 MHz and 1695-1710 MHz bands. The SRF is administered by the Office of Management and Budget (OMB), which approves SRF transfers to federal agencies on an annual basis in consultation with the National Telecommunications and Information Administration (NTIA).

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                           | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost    | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|------------|---------------------------------------------|---------------|-----------------------------|---------|----------------------------|------|------------------------------|------|-------------|
| ----       | -----                                       | -----         | -----                       | ----    | -----                      | ---- | -----                        | ---- | -           |
|            | Submarine Communications                    |               |                             |         |                            |      |                              |      |             |
| 75         | Submarine Broadcast Support                 | A             |                             | 30,897  |                            |      | 30,897                       |      | U           |
| 76         | Submarine Communication Equipment           | A             |                             | 78,580  |                            |      | 78,580                       |      | U           |
|            | Satellite Communications                    |               |                             |         |                            |      |                              |      |             |
| 77         | Satellite Communications Systems            | A             |                             | 41,205  | 3,200                      |      | 44,405                       |      | U           |
| 78         | Navy Multiband Terminal (NMT)               |               |                             | 113,885 |                            |      | 113,885                      |      | U           |
|            | Shore Communications                        |               |                             |         |                            |      |                              |      |             |
| 79         | Joint Communications Support Element (JCSE) | A             |                             | 4,292   |                            |      | 4,292                        |      | U           |
|            | Cryptographic Equipment                     |               |                             |         |                            |      |                              |      |             |
| 80         | Info Systems Security Program (ISSP)        | A             |                             | 153,526 |                            |      | 153,526                      |      | U           |
| 81         | MIO Intel Exploitation Team                 | A             |                             | 951     |                            |      | 951                          |      | U           |
|            | Cryptologic Equipment                       |               |                             |         |                            |      |                              |      |             |
| 82         | Cryptologic Communications Equip            | A             |                             | 14,209  | 2,000                      |      | 16,209                       |      | U           |
|            | Other Electronic Support                    |               |                             |         |                            |      |                              |      |             |
| 83         | DON UAS 1***                                | A             |                             |         |                            |      |                              |      | U           |
| 84         | DON UAS 2***                                | A             |                             |         |                            |      |                              |      | U           |
| 85         | DON ACTS***                                 | A             |                             |         |                            |      |                              |      | U           |
| 86         | Coast Guard Equipment                       | A             |                             | 40,713  |                            |      | 40,713                       |      | U           |

\*\*\*Funding in this line item was transferred during the year of execution from the Spectrum Relocation Fund (SRF) in support of the Advanced Wireless Services 3 (AWS-3) auction and is associated with the reallocation or sharing of the 1755-1780 MHz and 1695-1710 MHz bands. The SRF is administered by the Office of Management and Budget (OMB), which approves SRF transfers to federal agencies on an annual basis in consultation with the National Telecommunications and Information Administration (NTIA).

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                              | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------|------------------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
|            | Drug Interdiction Support                      |               |                                          |                                                               |                                                                          |                                                              |             |
| 87         | Other Drug Interdiction Support                | A             | 16,000                                   |                                                               |                                                                          |                                                              | U           |
|            | Total Communications & Electronics Equip       |               | 2,088,792                                | 2,565,260                                                     | 2,555,260                                                                | 62,622                                                       |             |
|            | Budget Activity 03: Aviation Support Equipment |               |                                          |                                                               |                                                                          |                                                              |             |
|            | Sonobuoys                                      |               |                                          |                                                               |                                                                          |                                                              |             |
| 88         | Sonobuoys - All Types                          | A             | 158,588                                  | 173,616                                                       | 173,616                                                                  |                                                              | U           |
|            | Aircraft Support Equipment                     |               |                                          |                                                               |                                                                          |                                                              |             |
| 89         | Weapons Range Support Equipment                | A             | 58,116                                   | 72,110                                                        | 72,110                                                                   |                                                              | U           |
| 90         | Aircraft Support Equipment                     | A             | 115,551                                  | 108,482                                                       | 108,482                                                                  |                                                              | U           |
| 91         | Advanced Arresting Gear (AAG)                  | A             |                                          | 10,900                                                        | 10,900                                                                   |                                                              | U           |
| 92         | Meteorological Equipment                       | A             | 29,015                                   | 21,137                                                        | 21,137                                                                   |                                                              | U           |
| 93         | DCRS/DPL                                       | A             | 632                                      | 660                                                           | 660                                                                      |                                                              | U           |
| 94         | Airborne Mine Countermeasures                  | A             | 27,542                                   | 20,605                                                        | 20,605                                                                   |                                                              | U           |
| 95         | Lamps Equipment                                |               |                                          |                                                               |                                                                          |                                                              | U           |
| 96         | Aviation Support Equipment                     | A             | 29,528                                   | 34,032                                                        | 34,032                                                                   | 29,245                                                       | U           |
| 97         | UMCS-Unman Carrier Aviation(UCA)Mission Cntrl  | A             |                                          |                                                               |                                                                          |                                                              | U           |
|            | Total Aviation Support Equipment               |               | 418,972                                  | 441,542                                                       | 441,542                                                                  | 29,245                                                       |             |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                              | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost   | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost   | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost   | S<br>e<br>c |
|------------|------------------------------------------------|---------------|--------------------------------------------------------------------|--------|-------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|--------|-------------|
|            | Drug Interdiction Support                      |               |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        |             |
| 87         | Other Drug Interdiction Support                | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
|            | Total Communications & Electronics Equip       |               |                                                                    | 65,722 |                                                             | 15,000 |                                                                                         |      |                                                   | 15,000 |             |
|            | Budget Activity 03: Aviation Support Equipment |               |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        |             |
|            | Sonobuoys                                      |               |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        |             |
| 88         | Sonobuoys - All Types                          | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
|            | Aircraft Support Equipment                     |               |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        |             |
| 89         | Weapons Range Support Equipment                | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 90         | Aircraft Support Equipment                     | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 91         | Advanced Arresting Gear (AAG)                  | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 92         | Meteorological Equipment                       | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 93         | DCRS/DPL                                       | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 94         | Airborne Mine Countermeasures                  | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 95         | Lamps Equipment                                |               |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 96         | Aviation Support Equipment                     | A             |                                                                    | 29,245 |                                                             |        |                                                                                         |      |                                                   |        | U           |
| 97         | UMCS-Unman Carrier Aviation(UCA)Mission Cntrl  | A             |                                                                    |        |                                                             |        |                                                                                         |      |                                                   |        | U           |
|            | Total Aviation Support Equipment               |               |                                                                    | 29,245 |                                                             |        |                                                                                         |      |                                                   |        |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                              | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|------------|------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| ----       | -----                                          | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
|            | Drug Interdiction Support                      |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 87         | Other Drug Interdiction Support                | A             |                                                                                                 |                                                                                              |                                                                                       | U           |
|            |                                                |               | -----                                                                                           | -----                                                                                        | -----                                                                                 |             |
|            | Total Communications & Electronics Equip       |               | 2,635,982                                                                                       |                                                                                              | 2,635,982                                                                             |             |
|            | Budget Activity 03: Aviation Support Equipment |               |                                                                                                 |                                                                                              |                                                                                       |             |
|            | -----                                          |               |                                                                                                 |                                                                                              |                                                                                       |             |
|            | Sonobuoys                                      |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 88         | Sonobuoys - All Types                          | A             | 173,616                                                                                         |                                                                                              | 173,616                                                                               | U           |
|            | Aircraft Support Equipment                     |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 89         | Weapons Range Support Equipment                | A             | 72,110                                                                                          |                                                                                              | 72,110                                                                                | U           |
| 90         | Aircraft Support Equipment                     | A             | 108,482                                                                                         |                                                                                              | 108,482                                                                               | U           |
| 91         | Advanced Arresting Gear (AAG)                  | A             | 10,900                                                                                          |                                                                                              | 10,900                                                                                | U           |
| 92         | Meteorological Equipment                       | A             | 21,137                                                                                          |                                                                                              | 21,137                                                                                | U           |
| 93         | DCRS/DPL                                       | A             | 660                                                                                             |                                                                                              | 660                                                                                   | U           |
| 94         | Airborne Mine Countermeasures                  | A             | 20,605                                                                                          |                                                                                              | 20,605                                                                                | U           |
| 95         | Lamps Equipment                                |               |                                                                                                 |                                                                                              |                                                                                       | U           |
| 96         | Aviation Support Equipment                     | A             | 63,277                                                                                          |                                                                                              | 63,277                                                                                | U           |
| 97         | UMCS-Unman Carrier Aviation(UCA)Mission Cntrl  | A             |                                                                                                 |                                                                                              |                                                                                       | U           |
|            |                                                |               | -----                                                                                           | -----                                                                                        | -----                                                                                 |             |
|            | Total Aviation Support Equipment               |               | 470,787                                                                                         |                                                                                              | 470,787                                                                               |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No | Item Nomenclature                              | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|------------|------------------------------------------------|---------------|-----------------------------|------|----------------------------|------|------------------------------|------|-------------|
| ----       | -----                                          | -----         | -----                       | ---- | -----                      | ---- | -----                        | ---- | -           |
|            | Drug Interdiction Support                      |               |                             |      |                            |      |                              |      |             |
| 87         | Other Drug Interdiction Support                | A             |                             |      |                            |      |                              |      | U           |
|            | Total Communications & Electronics Equip       |               | 3,176,305                   |      | 62,150                     |      | 3,238,455                    |      |             |
|            | Budget Activity 03: Aviation Support Equipment |               |                             |      |                            |      |                              |      |             |
|            | -----                                          |               |                             |      |                            |      |                              |      |             |
|            | Sonobuoys                                      |               |                             |      |                            |      |                              |      |             |
| 88         | Sonobuoys - All Types                          | A             | 177,891                     |      | 21,156                     |      | 199,047                      |      | U           |
|            | Aircraft Support Equipment                     |               |                             |      |                            |      |                              |      |             |
| 89         | Weapons Range Support Equipment                | A             | 93,864                      |      |                            |      | 93,864                       |      | U           |
| 90         | Aircraft Support Equipment                     | A             | 111,724                     |      |                            |      | 111,724                      |      | U           |
| 91         | Advanced Arresting Gear (AAG)                  | A             | 11,054                      |      |                            |      | 11,054                       |      | U           |
| 92         | Meteorological Equipment                       | A             | 21,072                      |      |                            |      | 21,072                       |      | U           |
| 93         | DCRS/DPL                                       | A             | 656                         |      |                            |      | 656                          |      | U           |
| 94         | Airborne Mine Countermeasures                  | A             | 11,299                      |      |                            |      | 11,299                       |      | U           |
| 95         | Lamps Equipment                                |               | 594                         |      |                            |      | 594                          |      | U           |
| 96         | Aviation Support Equipment                     | A             | 39,374                      |      |                            |      | 39,374                       |      | U           |
| 97         | UMCS-Unman Carrier Aviation(UCA)Mission Cntrl  | A             | 35,405                      |      |                            |      | 35,405                       |      | U           |
|            | Total Aviation Support Equipment               |               | 502,933                     |      | 21,156                     |      | 524,089                      |      |             |



## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                     | Item Nomenclature                 | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|------------------------------------------------|-----------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----                                           | -----                             | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| Budget Activity 04: Ordnance Support Equipment |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| -----                                          |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| Ship Gun System Equipment                      |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| 98                                             | Ship Gun Systems Equipment        | A             | 6,191                                    | 5,277                                                         | 5,277                                                                    |                                                              | U           |
| Ship Missile Systems Equipment                 |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| 99                                             | Ship Missile Support Equipment    | A             | 307,447                                  | 272,359                                                       | 272,359                                                                  | 2,436                                                        | U           |
| 100                                            | Tomahawk Support Equipment        | A             | 67,062                                   | 73,184                                                        | 73,184                                                                   |                                                              | U           |
| FBM Support Equipment                          |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| 101                                            | Strategic Missile Systems Equip   | A             | 215,138                                  | 246,221                                                       | 246,221                                                                  |                                                              | U           |
| ASW Support Equipment                          |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| 102                                            | SSN Combat Control Systems        | A             | 144,715                                  | 129,972                                                       | 129,972                                                                  |                                                              | U           |
| 103                                            | ASW Support Equipment             | A             | 36,431                                   | 23,209                                                        | 23,209                                                                   |                                                              | U           |
| Other Ordnance Support Equipment               |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| 104                                            | Explosive Ordnance Disposal Equip | B             | 92,655                                   | 15,596                                                        | 15,596                                                                   | 31,970                                                       | U           |
| 105                                            | Items Less Than \$5 Million       | A             | 6,243                                    | 5,981                                                         | 5,981                                                                    |                                                              | U           |
| Other Expendable Ordnance                      |                                   |               |                                          |                                                               |                                                                          |                                                              |             |
| 106                                            | Submarine Training Device Mods    | A             | 46,746                                   | 74,550                                                        | 74,550                                                                   |                                                              | U           |
| 107                                            | Surface Training Equipment        | A             | 87,714                                   | 83,022                                                        | 83,022                                                                   |                                                              | U           |
| Total Ordnance Support Equipment               |                                   |               | 1,010,342                                | 929,371                                                       | 929,371                                                                  | 34,406                                                       |             |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                     | Item Nomenclature                 | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost   | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost  | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost  | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost  | S<br>e<br>c |
|------------------------------------------------|-----------------------------------|---------------|--------------------------------------------------------------------|--------|-------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------|-------|---------------------------------------------------|-------|-------------|
| ----                                           | -----                             | -----         | -----                                                              | ----   | -----                                                       | ----  | -----                                                                                   | ----  | -----                                             | ----  | -           |
| Budget Activity 04: Ordnance Support Equipment |                                   |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| -----                                          |                                   |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
|                                                | Ship Gun System Equipment         |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| 98                                             | Ship Gun Systems Equipment        | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
|                                                | Ship Missile Systems Equipment    |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| 99                                             | Ship Missile Support Equipment    | A             |                                                                    | 2,436  |                                                             |       |                                                                                         |       |                                                   |       | U           |
| 100                                            | Tomahawk Support Equipment        | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
|                                                | FBM Support Equipment             |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| 101                                            | Strategic Missile Systems Equip   | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
|                                                | ASW Support Equipment             |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| 102                                            | SSN Combat Control Systems        | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
| 103                                            | ASW Support Equipment             | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
|                                                | Other Ordnance Support Equipment  |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| 104                                            | Explosive Ordnance Disposal Equip | B             |                                                                    | 60,370 |                                                             |       |                                                                                         |       |                                                   |       | U           |
| 105                                            | Items Less Than \$5 Million       | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
|                                                | Other Expendable Ordnance         |               |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       |             |
| 106                                            | Submarine Training Device Mods    | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
| 107                                            | Surface Training Equipment        | A             |                                                                    |        |                                                             |       |                                                                                         |       |                                                   |       | U           |
|                                                |                                   |               |                                                                    | -----  |                                                             | ----- |                                                                                         | ----- |                                                   | ----- |             |
|                                                | Total Ordnance Support Equipment  |               |                                                                    | 62,806 |                                                             |       |                                                                                         |       |                                                   |       |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                     | Item Nomenclature                 | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c<br>- |
|------------------------------------------------|-----------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------|
| Budget Activity 04: Ordnance Support Equipment |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| Ship Gun System Equipment                      |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 98                                             | Ship Gun Systems Equipment        | A             | 5,277                                                                                           |                                                                                              | 5,277                                                                                 | U                |
| Ship Missile Systems Equipment                 |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 99                                             | Ship Missile Support Equipment    | A             | 274,795                                                                                         |                                                                                              | 274,795                                                                               | U                |
| 100                                            | Tomahawk Support Equipment        | A             | 73,184                                                                                          |                                                                                              | 73,184                                                                                | U                |
| FBM Support Equipment                          |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 101                                            | Strategic Missile Systems Equip   | A             | 246,221                                                                                         |                                                                                              | 246,221                                                                               | U                |
| ASW Support Equipment                          |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 102                                            | SSN Combat Control Systems        | A             | 129,972                                                                                         |                                                                                              | 129,972                                                                               | U                |
| 103                                            | ASW Support Equipment             | A             | 23,209                                                                                          |                                                                                              | 23,209                                                                                | U                |
| Other Ordnance Support Equipment               |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 104                                            | Explosive Ordnance Disposal Equip | B             | 75,966                                                                                          |                                                                                              | 75,966                                                                                | U                |
| 105                                            | Items Less Than \$5 Million       | A             | 5,981                                                                                           |                                                                                              | 5,981                                                                                 | U                |
| Other Expendable Ordnance                      |                                   |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 106                                            | Submarine Training Device Mods    | A             | 74,550                                                                                          |                                                                                              | 74,550                                                                                | U                |
| 107                                            | Surface Training Equipment        | A             | 83,022                                                                                          |                                                                                              | 83,022                                                                                | U                |
| Total Ordnance Support Equipment               |                                   |               | 992,177                                                                                         |                                                                                              | 992,177                                                                               |                  |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                     | Item Nomenclature                 | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost      | FY 2019<br>OCO<br>Quantity | Cost   | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|------------------------------------------------|-----------------------------------|---------------|-----------------------------|-----------|----------------------------|--------|------------------------------|------|-------------|
| ----                                           | -----                             | -----         | -----                       | ----      | -----                      | ----   | -----                        | ---- | -           |
| Budget Activity 04: Ordnance Support Equipment |                                   |               |                             |           |                            |        |                              |      |             |
| -----                                          |                                   |               |                             |           |                            |        |                              |      |             |
| Ship Gun System Equipment                      |                                   |               |                             |           |                            |        |                              |      |             |
| 98                                             | Ship Gun Systems Equipment        | A             |                             | 5,337     |                            |        | 5,337                        |      | U           |
| Ship Missile Systems Equipment                 |                                   |               |                             |           |                            |        |                              |      |             |
| 99                                             | Ship Missile Support Equipment    | A             |                             | 213,090   |                            |        | 213,090                      |      | U           |
| 100                                            | Tomahawk Support Equipment        | A             |                             | 92,890    |                            |        | 92,890                       |      | U           |
| FBM Support Equipment                          |                                   |               |                             |           |                            |        |                              |      |             |
| 101                                            | Strategic Missile Systems Equip   | A             |                             | 271,817   |                            |        | 271,817                      |      | U           |
| ASW Support Equipment                          |                                   |               |                             |           |                            |        |                              |      |             |
| 102                                            | SSN Combat Control Systems        | A             |                             | 129,501   |                            |        | 129,501                      |      | U           |
| 103                                            | ASW Support Equipment             | A             |                             | 19,436    |                            |        | 19,436                       |      | U           |
| Other Ordnance Support Equipment               |                                   |               |                             |           |                            |        |                              |      |             |
| 104                                            | Explosive Ordnance Disposal Equip | B             |                             | 14,258    |                            | 33,580 | 47,838                       |      | U           |
| 105                                            | Items Less Than \$5 Million       | A             |                             | 5,378     |                            |        | 5,378                        |      | U           |
| Other Expendable Ordnance                      |                                   |               |                             |           |                            |        |                              |      |             |
| 106                                            | Submarine Training Device Mods    | A             |                             | 65,543    |                            |        | 65,543                       |      | U           |
| 107                                            | Surface Training Equipment        | A             |                             | 230,425   |                            |        | 230,425                      |      | U           |
|                                                |                                   |               | -----                       |           | -----                      |        | -----                        |      |             |
| Total Ordnance Support Equipment               |                                   |               |                             | 1,047,675 |                            | 33,580 | 1,081,255                    |      |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                                   | Item Nomenclature                | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|--------------------------------------------------------------|----------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----                                                         | -----                            | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| Budget Activity 05: Civil Engineering Support Equip<br>----- |                                  |               |                                          |                                                               |                                                                          |                                                              |             |
| Civil Engineering Support Equipment                          |                                  |               |                                          |                                                               |                                                                          |                                                              |             |
| 108                                                          | Passenger Carrying Vehicles      | A             | 9,078                                    | 5,299                                                         | 5,299                                                                    |                                                              | U           |
| 109                                                          | General Purpose Trucks           | A             | 4,794                                    | 2,946                                                         | 2,946                                                                    | 496                                                          | U           |
| 110                                                          | Construction & Maintenance Equip | A             | 18,553                                   | 34,970                                                        | 34,970                                                                   |                                                              | U           |
| 111                                                          | Fire Fighting Equipment          | A             | 14,199                                   | 2,541                                                         | 2,541                                                                    | 2,304                                                        | U           |
| 112                                                          | Tactical Vehicles                | B             | 13,824                                   | 19,699                                                        | 19,699                                                                   | 2,336                                                        | U           |
| 113                                                          | Amphibious Equipment             | A             | 7,676                                    | 12,162                                                        | 12,162                                                                   |                                                              | U           |
| 114                                                          | Pollution Control Equipment      | A             | 2,321                                    | 2,748                                                         | 2,748                                                                    |                                                              | U           |
| 115                                                          | Items Under \$5 Million          | A             | 8,501                                    | 18,084                                                        | 18,084                                                                   |                                                              | U           |
| 116                                                          | Physical Security Vehicles       | A             | 1,095                                    | 1,170                                                         | 1,170                                                                    |                                                              | U           |
| Total Civil Engineering Support Equip                        |                                  |               | 80,041                                   | 99,619                                                        | 99,619                                                                   | 5,136                                                        |             |
| Budget Activity 06: Supply Support Equipment<br>-----        |                                  |               |                                          |                                                               |                                                                          |                                                              |             |
| Supply Support Equipment                                     |                                  |               |                                          |                                                               |                                                                          |                                                              |             |
| 117                                                          | Supply Equipment                 | A             | 16,978                                   | 21,797                                                        | 21,797                                                                   | 164                                                          | U           |
| 118                                                          | First Destination Transportation | A             | 5,115                                    | 5,572                                                         | 5,572                                                                    | 420                                                          | U           |
| 119                                                          | Special Purpose Supply Systems   | A             | 295,471                                  | 482,916                                                       | 482,916                                                                  |                                                              | U           |
| Total Supply Support Equipment                               |                                  |               | 317,564                                  | 510,285                                                       | 510,285                                                                  | 584                                                          |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                          | Item Nomenclature                | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost  | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|-----------------------------------------------------|----------------------------------|---------------|--------------------------------------------------------------------|-------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| Budget Activity 05: Civil Engineering Support Equip |                                  |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| Civil Engineering Support Equipment                 |                                  |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 108                                                 | Passenger Carrying Vehicles      | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 109                                                 | General Purpose Trucks           | A             |                                                                    | 496   |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 110                                                 | Construction & Maintenance Equip | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 111                                                 | Fire Fighting Equipment          | A             |                                                                    | 2,304 |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 112                                                 | Tactical Vehicles                | B             |                                                                    | 2,336 |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 113                                                 | Amphibious Equipment             | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 114                                                 | Pollution Control Equipment      | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 115                                                 | Items Under \$5 Million          | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 116                                                 | Physical Security Vehicles       | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Total Civil Engineering Support Equip               |                                  |               |                                                                    | 5,136 |                                                             |      |                                                                                         |      |                                                   |      |             |
| Budget Activity 06: Supply Support Equipment        |                                  |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| Supply Support Equipment                            |                                  |               |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      |             |
| 117                                                 | Supply Equipment                 | A             |                                                                    | 164   |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 118                                                 | First Destination Transportation | A             |                                                                    | 420   |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 119                                                 | Special Purpose Supply Systems   | A             |                                                                    |       |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Total Supply Support Equipment                      |                                  |               |                                                                    | 584   |                                                             |      |                                                                                         |      |                                                   |      |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                                   | Item Nomenclature                     | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|--------------------------------------------------------------|---------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| -----                                                        | -----                                 | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
| Budget Activity 05: Civil Engineering Support Equip<br>----- |                                       |               |                                                                                                 |                                                                                              |                                                                                       |             |
| Civil Engineering Support Equipment                          |                                       |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 108                                                          | Passenger Carrying Vehicles           | A             | 5,299                                                                                           |                                                                                              | 5,299                                                                                 | U           |
| 109                                                          | General Purpose Trucks                | A             | 3,442                                                                                           |                                                                                              | 3,442                                                                                 | U           |
| 110                                                          | Construction & Maintenance Equip      | A             | 34,970                                                                                          |                                                                                              | 34,970                                                                                | U           |
| 111                                                          | Fire Fighting Equipment               | A             | 4,845                                                                                           |                                                                                              | 4,845                                                                                 | U           |
| 112                                                          | Tactical Vehicles                     | B             | 22,035                                                                                          |                                                                                              | 22,035                                                                                | U           |
| 113                                                          | Amphibious Equipment                  | A             | 12,162                                                                                          |                                                                                              | 12,162                                                                                | U           |
| 114                                                          | Pollution Control Equipment           | A             | 2,748                                                                                           |                                                                                              | 2,748                                                                                 | U           |
| 115                                                          | Items Under \$5 Million               | A             | 18,084                                                                                          |                                                                                              | 18,084                                                                                | U           |
| 116                                                          | Physical Security Vehicles            | A             | 1,170                                                                                           |                                                                                              | 1,170                                                                                 | U           |
|                                                              | Total Civil Engineering Support Equip |               | 104,755                                                                                         | -----                                                                                        | 104,755                                                                               |             |
| Budget Activity 06: Supply Support Equipment<br>-----        |                                       |               |                                                                                                 |                                                                                              |                                                                                       |             |
| Supply Support Equipment                                     |                                       |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 117                                                          | Supply Equipment                      | A             | 21,961                                                                                          |                                                                                              | 21,961                                                                                | U           |
| 118                                                          | First Destination Transportation      | A             | 5,992                                                                                           |                                                                                              | 5,992                                                                                 | U           |
| 119                                                          | Special Purpose Supply Systems        | A             | 482,916                                                                                         |                                                                                              | 482,916                                                                               | U           |
|                                                              | Total Supply Support Equipment        |               | 510,869                                                                                         | -----                                                                                        | 510,869                                                                               |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                                   | Item Nomenclature                | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|--------------------------------------------------------------|----------------------------------|---------------|-----------------------------|------|----------------------------|------|------------------------------|------|-------------|
| ----                                                         | -----                            | -----         | -----                       | ---- | -----                      | ---- | -----                        | ---- | -           |
| Budget Activity 05: Civil Engineering Support Equip<br>----- |                                  |               |                             |      |                            |      |                              |      |             |
| Civil Engineering Support Equipment                          |                                  |               |                             |      |                            |      |                              |      |             |
| 108                                                          | Passenger Carrying Vehicles      | A             | 4,867                       |      | 170                        |      | 5,037                        |      | U           |
| 109                                                          | General Purpose Trucks           | A             | 2,674                       |      | 400                        |      | 3,074                        |      | U           |
| 110                                                          | Construction & Maintenance Equip | A             | 20,994                      |      |                            |      | 20,994                       |      | U           |
| 111                                                          | Fire Fighting Equipment          | A             | 17,189                      |      | 770                        |      | 17,959                       |      | U           |
| 112                                                          | Tactical Vehicles                | B             | 19,916                      |      | 7,298                      |      | 27,214                       |      | U           |
| 113                                                          | Amphibious Equipment             | A             | 7,400                       |      |                            |      | 7,400                        |      | U           |
| 114                                                          | Pollution Control Equipment      | A             | 2,713                       |      |                            |      | 2,713                        |      | U           |
| 115                                                          | Items Under \$5 Million          | A             | 35,540                      |      |                            |      | 35,540                       |      | U           |
| 116                                                          | Physical Security Vehicles       | A             | 1,155                       |      |                            |      | 1,155                        |      | U           |
| Total Civil Engineering Support Equip                        |                                  |               | 112,448                     |      | 8,638                      |      | 121,086                      |      |             |
| Budget Activity 06: Supply Support Equipment<br>-----        |                                  |               |                             |      |                            |      |                              |      |             |
| Supply Support Equipment                                     |                                  |               |                             |      |                            |      |                              |      |             |
| 117                                                          | Supply Equipment                 | A             | 18,786                      |      |                            |      | 18,786                       |      | U           |
| 118                                                          | First Destination Transportation | A             | 5,375                       |      | 500                        |      | 5,875                        |      | U           |
| 119                                                          | Special Purpose Supply Systems   | A             | 580,371                     |      |                            |      | 580,371                      |      | U           |
| Total Supply Support Equipment                               |                                  |               | 604,532                     |      | 500                        |      | 605,032                      |      |             |

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## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                                     | Item Nomenclature                  | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|----------------------------------------------------------------|------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| -----                                                          | -----                              | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| Budget Activity 07: Personnel & Command Support Equip<br>----- |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| Training Devices                                               |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 120                                                            | Training Support Equipment         | A             |                                          |                                                               |                                                                          |                                                              | U           |
| 121                                                            | Training and Education Equipment   | A             | 6,347                                    | 25,624                                                        | 25,624                                                                   |                                                              | U           |
| Command Support Equipment                                      |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 122                                                            | Command Support Equipment          | A             | 44,666                                   | 59,076                                                        | 59,076                                                                   | 21,650                                                       | U           |
| 123                                                            | Medical Support Equipment          | A             | 11,959                                   | 4,383                                                         | 4,383                                                                    |                                                              | U           |
| 125                                                            | Naval MIP Support Equipment        | A             | 1,925                                    | 2,030                                                         | 2,030                                                                    |                                                              | U           |
| 126                                                            | Operating Forces Support Equipment | A             | 3,822                                    | 7,500                                                         | 7,500                                                                    | 15,800                                                       | U           |
| 127                                                            | C4ISR Equipment                    | A             | 9,073                                    | 4,010                                                         | 4,010                                                                    |                                                              | U           |
| 128                                                            | Environmental Support Equipment    | A             | 19,439                                   | 23,644                                                        | 23,644                                                                   | 1,000                                                        | U           |
| 129                                                            | Physical Security Equipment        | A             | 109,825                                  | 101,982                                                       | 101,982                                                                  | 15,890                                                       | U           |
| 130                                                            | Enterprise Information Technology  | A             | 88,799                                   | 19,789                                                        | 19,789                                                                   |                                                              | U           |
| Other                                                          |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 133                                                            | Next Generation Enterprise Service | A             | 84,176                                   | 104,584                                                       | 104,584                                                                  |                                                              | U           |
| 999                                                            | Classified Programs                |               | 11,575                                   | 23,707                                                        | 23,707                                                                   | 2,200                                                        | U           |
| Total Personnel & Command Support Equip                        |                                    |               | 391,606                                  | 376,329                                                       | 376,329                                                                  | 56,540                                                       |             |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                            | Item Nomenclature                  | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|-------------------------------------------------------|------------------------------------|---------------|--------------------------------------------------------------------|------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| Budget Activity 07: Personnel & Command Support Equip |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| Training Devices                                      |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 120                                                   | Training Support Equipment         | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 121                                                   | Training and Education Equipment   | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Command Support Equipment                             |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 122                                                   | Command Support Equipment          | A             | 21,650                                                             |      | 7,650                                                       |      |                                                                                         |      | 7,650                                             |      | U           |
| 123                                                   | Medical Support Equipment          | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 125                                                   | Naval MIP Support Equipment        | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 126                                                   | Operating Forces Support Equipment | A             | 15,800                                                             |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 127                                                   | C4ISR Equipment                    | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 128                                                   | Environmental Support Equipment    | A             | 1,000                                                              |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 129                                                   | Physical Security Equipment        | A             | 15,890                                                             |      | 3,100                                                       |      |                                                                                         |      | 3,100                                             |      | U           |
| 130                                                   | Enterprise Information Technology  | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Other                                                 |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 133                                                   | Next Generation Enterprise Service | A             |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| 999                                                   | Classified Programs                |               | 2,200                                                              |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
| Total Personnel & Command Support Equip               |                                    |               | 56,540                                                             |      | 10,750                                                      |      |                                                                                         |      | 10,750                                            |      |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                                     | Item Nomenclature                  | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c |
|----------------------------------------------------------------|------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|
| -----                                                          | -----                              | -----         | -----                                                                                           | -----                                                                                        | -----                                                                                 | -           |
| Budget Activity 07: Personnel & Command Support Equip<br>----- |                                    |               |                                                                                                 |                                                                                              |                                                                                       |             |
| Training Devices                                               |                                    |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 120                                                            | Training Support Equipment         | A             |                                                                                                 |                                                                                              |                                                                                       | U           |
| 121                                                            | Training and Education Equipment   | A             | 25,624                                                                                          |                                                                                              | 25,624                                                                                | U           |
| Command Support Equipment                                      |                                    |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 122                                                            | Command Support Equipment          | A             | 88,376                                                                                          |                                                                                              | 88,376                                                                                | U           |
| 123                                                            | Medical Support Equipment          | A             | 4,383                                                                                           |                                                                                              | 4,383                                                                                 | U           |
| 125                                                            | Naval MIP Support Equipment        | A             | 2,030                                                                                           |                                                                                              | 2,030                                                                                 | U           |
| 126                                                            | Operating Forces Support Equipment | A             | 23,300                                                                                          |                                                                                              | 23,300                                                                                | U           |
| 127                                                            | C4ISR Equipment                    | A             | 4,010                                                                                           |                                                                                              | 4,010                                                                                 | U           |
| 128                                                            | Environmental Support Equipment    | A             | 24,644                                                                                          |                                                                                              | 24,644                                                                                | U           |
| 129                                                            | Physical Security Equipment        | A             | 120,972                                                                                         |                                                                                              | 120,972                                                                               | U           |
| 130                                                            | Enterprise Information Technology  | A             | 19,789                                                                                          |                                                                                              | 19,789                                                                                | U           |
| Other                                                          |                                    |               |                                                                                                 |                                                                                              |                                                                                       |             |
| 133                                                            | Next Generation Enterprise Service | A             | 104,584                                                                                         |                                                                                              | 104,584                                                                               | U           |
| 999                                                            | Classified Programs                |               | 25,907                                                                                          |                                                                                              | 25,907                                                                                | U           |
|                                                                |                                    |               | -----                                                                                           | -----                                                                                        | -----                                                                                 |             |
| Total Personnel & Command Support Equip                        |                                    |               | 443,619                                                                                         |                                                                                              | 443,619                                                                               |             |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                                     | Item Nomenclature                  | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost    | FY 2019<br>OCO<br>Quantity | Cost   | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|----------------------------------------------------------------|------------------------------------|---------------|-----------------------------|---------|----------------------------|--------|------------------------------|------|-------------|
| ----                                                           | -----                              | -----         | -----                       | ----    | -----                      | ----   | -----                        | ---- | -           |
| Budget Activity 07: Personnel & Command Support Equip<br>----- |                                    |               |                             |         |                            |        |                              |      |             |
| Training Devices                                               |                                    |               |                             |         |                            |        |                              |      |             |
| 120                                                            | Training Support Equipment         | A             |                             | 3,400   |                            |        | 3,400                        |      | U           |
| 121                                                            | Training and Education Equipment   | A             |                             | 24,283  |                            |        | 24,283                       |      | U           |
| Command Support Equipment                                      |                                    |               |                             |         |                            |        |                              |      |             |
| 122                                                            | Command Support Equipment          | A             |                             | 66,681  |                            |        | 66,681                       |      | U           |
| 123                                                            | Medical Support Equipment          | A             |                             | 3,352   |                            | 6,500  | 9,852                        |      | U           |
| 125                                                            | Naval MIP Support Equipment        | A             |                             | 1,984   |                            |        | 1,984                        |      | U           |
| 126                                                            | Operating Forces Support Equipment | A             |                             | 15,131  |                            |        | 15,131                       |      | U           |
| 127                                                            | C4ISR Equipment                    | A             |                             | 3,576   |                            |        | 3,576                        |      | U           |
| 128                                                            | Environmental Support Equipment    | A             |                             | 31,902  |                            | 2,200  | 34,102                       |      | U           |
| 129                                                            | Physical Security Equipment        | A             |                             | 175,436 |                            | 19,389 | 194,825                      |      | U           |
| 130                                                            | Enterprise Information Technology  | A             |                             | 25,393  |                            |        | 25,393                       |      | U           |
| Other                                                          |                                    |               |                             |         |                            |        |                              |      |             |
| 133                                                            | Next Generation Enterprise Service | A             |                             | 96,269  |                            |        | 96,269                       |      | U           |
| 999                                                            | Classified Programs                |               |                             | 15,681  |                            | 4,800  | 20,481                       |      | U           |
|                                                                |                                    |               | -----                       |         | -----                      |        | -----                        |      |             |
| Total Personnel & Command Support Equip                        |                                    |               |                             | 463,088 |                            | 32,889 | 495,977                      |      |             |

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Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                  | Ident<br>Code | FY 2017<br>(Base + OCO)<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base<br>Quantity Cost | FY 2018<br>PB Request<br>with CR Adj<br>OCO<br>Quantity Cost | S<br>e<br>c |
|---------------------------------------------|------------------------------------|---------------|------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------|-------------|
| ----                                        | -----                              | -----         | -----                                    | -----                                                         | -----                                                                    | -----                                                        | -           |
| Budget Activity 08: Spares and Repair Parts |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| -----                                       |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| Spares and Repair Parts                     |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 134                                         | Spares and Repair Parts            | A             | 199,627                                  | 278,565                                                       | 278,565                                                                  | 1,178                                                        | U           |
|                                             |                                    |               | -----                                    | -----                                                         | -----                                                                    | -----                                                        |             |
|                                             | Total Spares and Repair Parts      |               | 199,627                                  | 278,565                                                       | 278,565                                                                  | 1,178                                                        |             |
| Budget Activity 20: Undistributed           |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| -----                                       |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| Undistributed                               |                                    |               |                                          |                                                               |                                                                          |                                                              |             |
| 135                                         | Adj to Match Continuing Resolution | A             |                                          | -1,692,780                                                    | -1,692,780                                                               | 31,024                                                       | U           |
|                                             |                                    |               | -----                                    | -----                                                         | -----                                                                    | -----                                                        |             |
|                                             | Total Undistributed                |               |                                          | -1,692,780                                                    | -1,692,780                                                               | 31,024                                                       |             |
|                                             |                                    |               | -----                                    | -----                                                         | -----                                                                    | -----                                                        |             |
|                                             | Total Other Procurement, Navy      |               | 6,651,966                                | 6,585,009                                                     | 6,210,084                                                                | 251,083                                                      |             |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                  | Ident<br>Code | FY 2018<br>Total<br>PB Requests+<br>with CR Adj<br>OCO<br>Quantity | Cost | FY 2018<br>Emergency<br>Requests**<br>Emergency<br>Quantity | Cost | FY 2018<br>Less Enacted<br>Div B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity | Cost | FY 2018<br>Remaining Req<br>Emergency<br>Quantity | Cost | S<br>e<br>c |
|---------------------------------------------|------------------------------------|---------------|--------------------------------------------------------------------|------|-------------------------------------------------------------|------|-----------------------------------------------------------------------------------------|------|---------------------------------------------------|------|-------------|
| Budget Activity 08: Spares and Repair Parts |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| -----                                       |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| Spares and Repair Parts                     |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 134                                         | Spares and Repair Parts            | A             | 1,178                                                              |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
|                                             |                                    |               | -----                                                              |      | -----                                                       |      | -----                                                                                   |      | -----                                             |      |             |
| Total Spares and Repair Parts               |                                    |               | 1,178                                                              |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| Budget Activity 20: Undistributed           |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| -----                                       |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| Undistributed                               |                                    |               |                                                                    |      |                                                             |      |                                                                                         |      |                                                   |      |             |
| 135                                         | Adj to Match Continuing Resolution | A             | -476                                                               |      |                                                             |      |                                                                                         |      |                                                   |      | U           |
|                                             |                                    |               | -----                                                              |      | -----                                                       |      | -----                                                                                   |      | -----                                             |      |             |
| Total Undistributed                         |                                    |               | -476                                                               |      |                                                             |      |                                                                                         |      |                                                   |      |             |
|                                             |                                    |               | -----                                                              |      | -----                                                       |      | -----                                                                                   |      | -----                                             |      |             |
| Total Other Procurement, Navy               |                                    |               | 251,083                                                            |      | 25,750                                                      |      |                                                                                         |      | 25,750                                            |      |             |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                  | Ident<br>Code | FY 2018<br>Total<br>PB Requests*<br>with CR Adj<br>Base + OCO +<br>Emergency**<br>Quantity Cost | FY 2018<br>Less Enacted<br>DIV B<br>P.L.115-96***<br>MDDE + Ship<br>Repairs<br>Quantity Cost | FY 2018<br>Remaining Req<br>with CR Adj<br>Base + OCO +<br>Emergency<br>Quantity Cost | S<br>e<br>c<br>- |
|---------------------------------------------|------------------------------------|---------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------|
| Budget Activity 08: Spares and Repair Parts |                                    |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| -----                                       |                                    |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| Spares and Repair Parts                     |                                    |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 134                                         | Spares and Repair Parts            | A             | 279,743                                                                                         |                                                                                              | 279,743                                                                               | U                |
|                                             |                                    |               | -----                                                                                           | -----                                                                                        | -----                                                                                 |                  |
|                                             | Total Spares and Repair Parts      |               | 279,743                                                                                         |                                                                                              | 279,743                                                                               |                  |
| Budget Activity 20: Undistributed           |                                    |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| -----                                       |                                    |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| Undistributed                               |                                    |               |                                                                                                 |                                                                                              |                                                                                       |                  |
| 135                                         | Adj to Match Continuing Resolution | A             | -1,719,006                                                                                      |                                                                                              | -1,719,006                                                                            | U                |
|                                             |                                    |               | -----                                                                                           | -----                                                                                        | -----                                                                                 |                  |
|                                             | Total Undistributed                |               | -1,719,006                                                                                      |                                                                                              | -1,719,006                                                                            |                  |
|                                             |                                    |               | -----                                                                                           | -----                                                                                        | -----                                                                                 |                  |
|                                             | Total Other Procurement, Navy      |               | 6,461,167                                                                                       |                                                                                              | 6,461,167                                                                             |                  |

## UNCLASSIFIED

Department of the Navy  
FY 2019 President's Budget  
Exhibit P-1 FY 2019 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

| Line<br>No                                  | Item Nomenclature                  | Ident<br>Code | FY 2019<br>Base<br>Quantity | Cost | FY 2019<br>OCO<br>Quantity | Cost | FY 2019<br>Total<br>Quantity | Cost | S<br>e<br>c |
|---------------------------------------------|------------------------------------|---------------|-----------------------------|------|----------------------------|------|------------------------------|------|-------------|
| ----                                        | -----                              | -----         | -----                       | ---- | -----                      | ---- | -----                        | ---- | -           |
| Budget Activity 08: Spares and Repair Parts |                                    |               |                             |      |                            |      |                              |      |             |
| -----                                       |                                    |               |                             |      |                            |      |                              |      |             |
| Spares and Repair Parts                     |                                    |               |                             |      |                            |      |                              |      |             |
| 134                                         | Spares and Repair Parts            | A             | 326,838                     |      |                            |      | 326,838                      |      | U           |
|                                             |                                    |               | -----                       |      | -----                      |      | -----                        |      |             |
|                                             | Total Spares and Repair Parts      |               | 326,838                     |      |                            |      | 326,838                      |      |             |
| Budget Activity 20: Undistributed           |                                    |               |                             |      |                            |      |                              |      |             |
| -----                                       |                                    |               |                             |      |                            |      |                              |      |             |
| Undistributed                               |                                    |               |                             |      |                            |      |                              |      |             |
| 135                                         | Adj to Match Continuing Resolution | A             |                             |      |                            |      |                              |      | U           |
|                                             |                                    |               | -----                       |      | -----                      |      | -----                        |      |             |
|                                             | Total Undistributed                |               |                             |      |                            |      |                              |      |             |
|                                             |                                    |               | -----                       |      | -----                      |      | -----                        |      |             |
|                                             | Total Other Procurement, Navy      |               | 9,414,355                   |      | 187,173                    |      | 9,601,528                    |      |             |



UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

Master Line Item Table of Contents (by Appropriation then Line Number)

*Appropriation 1810N: Other Procurement, Navy*

| Line # | BA | BSA | Line Item Number | Line Item Title                                 | Page           |
|--------|----|-----|------------------|-------------------------------------------------|----------------|
| 1      | 01 | 01  | 0131             | Surface Power Equipment.....                    | Volume 1 - 1   |
| 2      | 01 | 01  | 0140             | Hybrid Electric Drive (HED).....                | Volume 1 - 15  |
| 3      | 01 | 02  | 0200             | Surface Combatant HM&E.....                     | Volume 1 - 21  |
| 4      | 01 | 06  | 0670             | Other Navigation Equipment.....                 | Volume 1 - 41  |
| 5      | 01 | 09  | 0840             | Sub Periscope, Imaging and Supt Equip Prog..... | Volume 1 - 133 |
| 6      | 01 | 09  | 0900             | DDG Mod.....                                    | Volume 1 - 183 |
| 7      | 01 | 09  | 0910             | Firefighting Equipment.....                     | Volume 1 - 261 |
| 8      | 01 | 09  | 0925             | Command and Control Switchboard.....            | Volume 1 - 281 |
| 9      | 01 | 09  | 0933             | LHA/LHD Midlife.....                            | Volume 1 - 289 |
| 10     | 01 | 09  | 0935             | Pollution Control Equipment.....                | Volume 1 - 315 |
| 11     | 01 | 09  | 0941             | Submarine Support Equipment.....                | Volume 1 - 333 |
| 12     | 01 | 09  | 0942             | Virginia Class Support Equipment.....           | Volume 1 - 343 |
| 13     | 01 | 09  | 0944             | LCS Class Support Equipment.....                | Volume 1 - 361 |
| 14     | 01 | 09  | 0945             | Submarine Batteries.....                        | Volume 1 - 371 |
| 15     | 01 | 09  | 0946             | LPD Class Support Equipment.....                | Volume 1 - 377 |
| 16     | 01 | 09  | 0947             | DDG 1000 Class Support Equipment.....           | Volume 1 - 431 |

UNCLASSIFIED

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                           | Page           |
|--------|----|-----|------------------|-------------------------------------------|----------------|
| 17     | 01 | 09  | 0950             | Strategic Platform Support Equip.....     | Volume 1 - 439 |
| 18     | 01 | 09  | 0955             | Deep Subm Sys Proj (DSSP) Equip.....      | Volume 1 - 449 |
| 19     | 01 | 09  | 0960             | CG Modernization.....                     | Volume 1 - 453 |
| 20     | 01 | 09  | 0970             | LCAC.....                                 | Volume 1 - 493 |
| 21     | 01 | 09  | 0977             | Underwater EOD Programs.....              | Volume 1 - 497 |
| 22     | 01 | 09  | 0981             | Items less than \$5 Million.....          | Volume 1 - 523 |
| 23     | 01 | 09  | 0989             | Chemical Warfare Detectors.....           | Volume 1 - 573 |
| 24     | 01 | 09  | 0990             | Submarine Life Support System.....        | Volume 1 - 603 |
| 25     | 01 | 10  | 1010             | Reactor Power Units.....                  | Volume 1 - 609 |
| 26     | 01 | 10  | 1020             | Reactor Components.....                   | Volume 1 - 613 |
| 27     | 01 | 11  | 1130             | Diving and Salvage Equipment.....         | Volume 1 - 617 |
| 28     | 01 | 12  | 1210             | Standard Boats.....                       | Volume 1 - 635 |
| 29     | 01 | 14  | 1445             | Operating Forces IPE.....                 | Volume 1 - 649 |
| 30     | 01 | 15  | 1480             | Nuclear Alterations.....                  | Volume 1 - 685 |
| 31     | 01 | 15  | 1600             | LCS Common Mission Modules Equipment..... | Volume 1 - 689 |
| 32     | 01 | 15  | 1601             | LCS MCM Mission Modules.....              | Volume 1 - 699 |
| 33     | 01 | 15  | 1602             | LCS ASW Mission Modules.....              | Volume 1 - 711 |
| 34     | 01 | 15  | 1603             | LCS SUW Mission Modules.....              | Volume 1 - 723 |

**UNCLASSIFIED**

UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                   | Page           |
|--------|----|-----|------------------|-----------------------------------|----------------|
| 35     | 01 | 15  | 1604             | LCS In-Service Modernization..... | Volume 1 - 733 |
| 36     | 01 | 16  | 1610             | LSD Midlife & Modernization.....  | Volume 1 - 741 |

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                            | Page           |
|--------|----|-----|------------------|--------------------------------------------|----------------|
| 37     | 02 | 02  | 2026             | SPQ-9B Radar.....                          | Volume 2 - 1   |
| 38     | 02 | 02  | 2136             | AN/SQQ-89 Surf ASW Cmbt Sys.....           | Volume 2 - 11  |
| 39     | 02 | 02  | 2150             | SSN Acoustic Equipment.....                | Volume 2 - 39  |
| 40     | 02 | 02  | 2176             | Undersea Warfare Support Equipment.....    | Volume 2 - 85  |
| 41     | 02 | 03  | 2210             | Submarine Acoustic Warfare System.....     | Volume 2 - 93  |
| 42     | 02 | 03  | 2213             | Surface Ship Torpedo Def (SSTD).....       | Volume 2 - 121 |
| 43     | 02 | 03  | 2225             | Fixed Surveillance System.....             | Volume 2 - 129 |
| 44     | 02 | 03  | 2237             | SURTASS.....                               | Volume 2 - 133 |
| 45     | 02 | 04  | 2312             | AN/SLQ-32.....                             | Volume 2 - 157 |
| 46     | 02 | 05  | 2360             | Shipboard IW Exploit.....                  | Volume 2 - 193 |
| 47     | 02 | 05  | 2361             | Automatic Identification System (AIS)..... | Volume 2 - 221 |

UNCLASSIFIED

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                                         | Page           |
|--------|----|-----|------------------|---------------------------------------------------------|----------------|
| 48     | 02 | 07  | 2606             | Cooperative Engagement Capability.....                  | Volume 2 - 227 |
| 49     | 02 | 07  | 2611             | Naval Tact Cmd Supt Sys (NTCSS).....                    | Volume 2 - 253 |
| 50     | 02 | 07  | 2614             | Adv Tact Data Link Sys (ATDLS).....                     | Volume 2 - 263 |
| 51     | 02 | 07  | 2618             | Navy Command and Control System (NCCS).....             | Volume 2 - 279 |
| 52     | 02 | 07  | 2622             | Minesweeping System Replacement.....                    | Volume 2 - 287 |
| 53     | 02 | 07  | 2624             | Shallow Water MCM.....                                  | Volume 2 - 301 |
| 54     | 02 | 07  | 2657             | NAVSTAR GPS Receivers (Space).....                      | Volume 2 - 311 |
| 55     | 02 | 07  | 2666             | American Forces Radio and TV Service (AFRTS).....       | Volume 2 - 323 |
| 56     | 02 | 07  | 2676             | Strategic Platform Support Equip.....                   | Volume 2 - 329 |
| 57     | 02 | 09  | 2820             | Ashore ATC Equipment.....                               | Volume 2 - 333 |
| 58     | 02 | 09  | 2830             | Afloat ATC Equipment.....                               | Volume 2 - 389 |
| 59     | 02 | 09  | 2851             | ID Systems.....                                         | Volume 2 - 427 |
| 60     | 02 | 09  | 2867             | Joint Precision Approach and Landing System(JPALS)..... | Volume 2 - 465 |
| 61     | 02 | 09  | 2876             | Naval Mission Planning Systems.....                     | Volume 2 - 471 |
| 62     | 02 | 10  | 2906             | Tactical/Mobile C4I Systems.....                        | Volume 2 - 477 |
| 63     | 02 | 10  | 2914             | Distributed Common Ground System-Navy (DCGS-N).....     | Volume 2 - 501 |
| 64     | 02 | 10  | 2915             | CANES.....                                              | Volume 2 - 523 |
| 65     | 02 | 10  | 2920             | RADIAC.....                                             | Volume 2 - 537 |

**UNCLASSIFIED**

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                                  | Page           |
|--------|----|-----|------------------|--------------------------------------------------|----------------|
| 66     | 02 | 10  | 2925             | CANES Intell.....                                | Volume 2 - 549 |
| 67     | 02 | 10  | 2940             | Gen Purp Elec Test Equip (GPETE).....            | Volume 2 - 561 |
| 68     | 02 | 10  | 2950             | Network Tactical Common Data Link (CDL).....     | Volume 2 - 567 |
| 69     | 02 | 10  | 2960             | Integ Combat System Test Facility.....           | Volume 2 - 573 |
| 70     | 02 | 10  | 2970             | EMI Control Instrumentation.....                 | Volume 2 - 577 |
| 71     | 02 | 10  | 2980             | Items less than \$5 Million.....                 | Volume 2 - 581 |
| 72     | 02 | 11  | 3010             | Shipboard Tactical Comms.....                    | Volume 2 - 611 |
| 73     | 02 | 11  | 3050             | Ship Communications Automation.....              | Volume 2 - 621 |
| 74     | 02 | 11  | 3057             | Communications Items under \$5M.....             | Volume 2 - 645 |
| 75     | 02 | 12  | 3107             | Submarine Broadcast Support.....                 | Volume 2 - 651 |
| 76     | 02 | 12  | 3130             | Submarine Communication Equipment.....           | Volume 2 - 673 |
| 77     | 02 | 13  | 3215             | Satellite Communications Systems.....            | Volume 2 - 709 |
| 78     | 02 | 13  | 3216             | Navy Multiband Terminal (NMT).....               | Volume 2 - 735 |
| 79     | 02 | 14  | 3302             | Joint Communications Support Element (JCSE)..... | Volume 2 - 757 |
| 80     | 02 | 15  | 3415             | Info Systems Security Program (ISSP).....        | Volume 2 - 761 |
| 81     | 02 | 15  | 3417             | MIO Intel Exploitation Team.....                 | Volume 2 - 801 |
| 82     | 02 | 16  | 3501             | Cryptologic Communications Equip.....            | Volume 2 - 805 |
| 86     | 02 | 17  | 3620             | Coast Guard Equipment.....                       | Volume 2 - 817 |

**UNCLASSIFIED**

UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                                        | Page           |
|--------|----|-----|------------------|--------------------------------------------------------|----------------|
| 88     | 03 | 01  | 4048             | Sonobuoys - All Types.....                             | Volume 3 - 1   |
| 89     | 03 | 03  | 4204             | Weapons Range Support Equipment.....                   | Volume 3 - 13  |
| 90     | 03 | 03  | 4213             | Aircraft Support Equipment.....                        | Volume 3 - 23  |
| 91     | 03 | 03  | 4217             | Advanced Arresting Gear (AAG).....                     | Volume 3 - 67  |
| 92     | 03 | 03  | 4226             | Meteorological Equipment.....                          | Volume 3 - 77  |
| 93     | 03 | 03  | 4242             | DCRS/DPL.....                                          | Volume 3 - 85  |
| 94     | 03 | 03  | 4248             | Legacy Airborne MCM.....                               | Volume 3 - 89  |
| 95     | 03 | 03  | 4250             | Common Control System.....                             | Volume 3 - 103 |
| 96     | 03 | 03  | 4268             | Aviation Support Equipment.....                        | Volume 3 - 107 |
| 97     | 03 | 03  | 4269             | UMCS-Unman Carrier Aviation(UCA)Mission Cntrl Stn..... | Volume 3 - 131 |

***Appropriation 1810N: Other Procurement, Navy***

| Line # | BA | BSA | Line Item Number | Line Item Title                 | Page         |
|--------|----|-----|------------------|---------------------------------|--------------|
| 98     | 04 | 02  | 5111             | Ship Gun Systems Equipment..... | Volume 4 - 1 |

UNCLASSIFIED

UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

**Appropriation 1810N: Other Procurement, Navy**

| Line # | BA | BSA | Line Item Number | Line Item Title                        | Page           |
|--------|----|-----|------------------|----------------------------------------|----------------|
| 99     | 04 | 03  | 5231             | Ship Missile Support Equipment.....    | Volume 4 - 7   |
| 100    | 04 | 03  | 5253             | Tomahawk Support Equipment.....        | Volume 4 - 57  |
| 101    | 04 | 04  | 5358             | Strategic Missile Systems Equip.....   | Volume 4 - 63  |
| 102    | 04 | 05  | 5420             | SSN Combat Control Systems.....        | Volume 4 - 87  |
| 103    | 04 | 05  | 5429             | ASW Support Equipment.....             | Volume 4 - 119 |
| 104    | 04 | 06  | 5509             | Explosive Ordnance Disposal Equip..... | Volume 4 - 131 |
| 105    | 04 | 06  | 5543             | Items Less Than \$5 Million.....       | Volume 4 - 143 |
| 106    | 04 | 07  | 5661             | Submarine Training Device Mods.....    | Volume 4 - 149 |
| 107    | 04 | 07  | 5664             | Surface Training Equipment.....        | Volume 4 - 159 |

**Appropriation 1810N: Other Procurement, Navy**

| Line # | BA | BSA | Line Item Number | Line Item Title                  | Page          |
|--------|----|-----|------------------|----------------------------------|---------------|
| 108    | 05 | 01  | 6003             | Passenger Carrying Vehicles..... | Volume 5 - 1  |
| 109    | 05 | 01  | 6007             | General Purpose Trucks.....      | Volume 5 - 13 |
| 110    | 05 | 01  | 6024             | Construction & Maint Equip.....  | Volume 5 - 21 |
| 111    | 05 | 01  | 6027             | Fire Fighting Equipment.....     | Volume 5 - 33 |

UNCLASSIFIED

UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

---

| Line # | BA | BSA | Line Item Number | Line Item Title                  | Page          |
|--------|----|-----|------------------|----------------------------------|---------------|
| 112    | 05 | 01  | 6028             | Tactical Vehicles.....           | Volume 5 - 41 |
| 113    | 05 | 01  | 6033             | Amphibious Equipment.....        | Volume 5 - 45 |
| 114    | 05 | 01  | 6058             | Pollution Control Equipment..... | Volume 5 - 53 |
| 115    | 05 | 01  | 6060             | Items under \$5 million.....     | Volume 5 - 57 |
| 116    | 05 | 01  | 6075             | Physical Security Vehicles.....  | Volume 5 - 69 |

***Appropriation 1810N: Other Procurement, Navy***

---

| Line # | BA | BSA | Line Item Number | Line Item Title                       | Page          |
|--------|----|-----|------------------|---------------------------------------|---------------|
| 117    | 06 | 01  | 7025             | Supply Equipment.....                 | Volume 5 - 73 |
| 118    | 06 | 01  | 7066             | First Destination Transportation..... | Volume 5 - 85 |
| 119    | 06 | 01  | 7069             | Special Purpose Supply Systems.....   | Volume 5 - 89 |

UNCLASSIFIED



UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

***Appropriation 1810N: Other Procurement, Navy***

---

| Line # | BA | BSA | Line Item Number | Line Item Title                         | Page           |
|--------|----|-----|------------------|-----------------------------------------|----------------|
| 120    | 07 | 01  | 8081             | Training Support Equipment.....         | Volume 5 - 93  |
| 121    | 07 | 01  | 8101             | Training and Education Equipment.....   | Volume 5 - 113 |
| 122    | 07 | 02  | 8106             | Command Support Equipment.....          | Volume 5 - 129 |
| 123    | 07 | 02  | 8109             | Medical Support Equipment.....          | Volume 5 - 159 |
| 125    | 07 | 02  | 8114             | Naval MIP Support Equipment.....        | Volume 5 - 169 |
| 126    | 07 | 02  | 8118             | Operating Forces Supt Equip.....        | Volume 5 - 175 |
| 127    | 07 | 02  | 8120             | C4ISR Equipment.....                    | Volume 5 - 181 |
| 128    | 07 | 02  | 8126             | Environmental Support Equipment.....    | Volume 5 - 185 |
| 129    | 07 | 02  | 8128             | Physical Security Equipment.....        | Volume 5 - 197 |
| 130    | 07 | 02  | 8161             | Enterprise Information Technology.....  | Volume 5 - 207 |
| 133    | 07 | 05  | 8164             | Next Generation Enterprise Service..... | Volume 5 - 223 |

UNCLASSIFIED

UNCLASSIFIED

Navy • Budget Estimates FY 2019 • Procurement

Appropriation 1810N: Other Procurement, Navy

| Line # | BA | BSA | Line Item Number | Line Item Title              | Page           |
|--------|----|-----|------------------|------------------------------|----------------|
| 134    | 08 | 01  | 9020             | Spares and Repair Parts..... | Volume 5 - 231 |

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

**Master Line Item Table of Contents (Alphabetically by Line Item Title)**

| Line Item Title                              | Line Item Number | Line # | BA | BSA     | Page           |
|----------------------------------------------|------------------|--------|----|---------|----------------|
| AN/SLQ-32                                    | 2312             | 45     | 02 | 04..... | Volume 2 - 157 |
| AN/SQQ-89 Surf ASW Cmbt Sys                  | 2136             | 38     | 02 | 02..... | Volume 2 - 11  |
| ASW Support Equipment                        | 5429             | 103    | 04 | 05..... | Volume 4 - 119 |
| Adv Tact Data Link Sys (ATDLS)               | 2614             | 50     | 02 | 07..... | Volume 2 - 263 |
| Advanced Arresting Gear (AAG)                | 4217             | 91     | 03 | 03..... | Volume 3 - 67  |
| Afloat ATC Equipment                         | 2830             | 58     | 02 | 09..... | Volume 2 - 389 |
| Aircraft Support Equipment                   | 4213             | 90     | 03 | 03..... | Volume 3 - 23  |
| American Forces Radio and TV Service (AFRTS) | 2666             | 55     | 02 | 07..... | Volume 2 - 323 |
| Amphibious Equipment                         | 6033             | 113    | 05 | 01..... | Volume 5 - 45  |
| Ashore ATC Equipment                         | 2820             | 57     | 02 | 09..... | Volume 2 - 333 |
| Automatic Identification System (AIS)        | 2361             | 47     | 02 | 05..... | Volume 2 - 221 |
| Aviation Support Equipment                   | 4268             | 96     | 03 | 03..... | Volume 3 - 107 |
| C4ISR Equipment                              | 8120             | 127    | 07 | 02..... | Volume 5 - 181 |
| CANES                                        | 2915             | 64     | 02 | 10..... | Volume 2 - 523 |
| CANES Intell                                 | 2925             | 66     | 02 | 10..... | Volume 2 - 549 |
| CG Modernization                             | 0960             | 19     | 01 | 09..... | Volume 1 - 453 |
| Chemical Warfare Detectors                   | 0989             | 23     | 01 | 09..... | Volume 1 - 573 |

**UNCLASSIFIED**

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

| Line Item Title                                | Line Item Number | Line # | BA | BSA     | Page           |
|------------------------------------------------|------------------|--------|----|---------|----------------|
| Coast Guard Equipment                          | 3620             | 86     | 02 | 17..... | Volume 2 - 817 |
| Command Support Equipment                      | 8106             | 122    | 07 | 02..... | Volume 5 - 129 |
| Command and Control Switchboard                | 0925             | 8      | 01 | 09..... | Volume 1 - 281 |
| Common Control System                          | 4250             | 95     | 03 | 03..... | Volume 3 - 103 |
| Communications Items under \$5M                | 3057             | 74     | 02 | 11..... | Volume 2 - 645 |
| Construction & Maint Equip                     | 6024             | 110    | 05 | 01..... | Volume 5 - 21  |
| Cooperative Engagement Capability              | 2606             | 48     | 02 | 07..... | Volume 2 - 227 |
| Cryptologic Communications Equip               | 3501             | 82     | 02 | 16..... | Volume 2 - 805 |
| DCRS/DPL                                       | 4242             | 93     | 03 | 03..... | Volume 3 - 85  |
| DDG 1000 Class Support Equipment               | 0947             | 16     | 01 | 09..... | Volume 1 - 431 |
| DDG Mod                                        | 0900             | 6      | 01 | 09..... | Volume 1 - 183 |
| Deep Subm Sys Proj (DSSP) Equip                | 0955             | 18     | 01 | 09..... | Volume 1 - 449 |
| Distributed Common Ground System-Navy (DCGS-N) | 2914             | 63     | 02 | 10..... | Volume 2 - 501 |
| Diving and Salvage Equipment                   | 1130             | 27     | 01 | 11..... | Volume 1 - 617 |
| EMI Control Instrumentation                    | 2970             | 70     | 02 | 10..... | Volume 2 - 577 |
| Enterprise Information Technology              | 8161             | 130    | 07 | 02..... | Volume 5 - 207 |
| Environmental Support Equipment                | 8126             | 128    | 07 | 02..... | Volume 5 - 185 |
| Explosive Ordnance Disposal Equip              | 5509             | 104    | 04 | 06..... | Volume 4 - 131 |
| Fire Fighting Equipment                        | 6027             | 111    | 05 | 01..... | Volume 5 - 33  |
| Firefighting Equipment                         | 0910             | 7      | 01 | 09..... | Volume 1 - 261 |

**UNCLASSIFIED**

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

| Line Item Title                                    | Line Item Number | Line # | BA | BSA     | Page           |
|----------------------------------------------------|------------------|--------|----|---------|----------------|
| First Destination Transportation                   | 7066             | 118    | 06 | 01..... | Volume 5 - 85  |
| Fixed Surveillance System                          | 2225             | 43     | 02 | 03..... | Volume 2 - 129 |
| Gen Purp Elec Test Equip (GPETE)                   | 2940             | 67     | 02 | 10..... | Volume 2 - 561 |
| General Purpose Trucks                             | 6007             | 109    | 05 | 01..... | Volume 5 - 13  |
| Hybrid Electric Drive (HED)                        | 0140             | 2      | 01 | 01..... | Volume 1 - 15  |
| ID Systems                                         | 2851             | 59     | 02 | 09..... | Volume 2 - 427 |
| Info Systems Security Program (ISSP)               | 3415             | 80     | 02 | 15..... | Volume 2 - 761 |
| Integ Combat System Test Facility                  | 2960             | 69     | 02 | 10..... | Volume 2 - 573 |
| Items Less Than \$5 Million                        | 5543             | 105    | 04 | 06..... | Volume 4 - 143 |
| Items less than \$5 Million                        | 0981             | 22     | 01 | 09..... | Volume 1 - 523 |
| Items less than \$5 Million                        | 2980             | 71     | 02 | 10..... | Volume 2 - 581 |
| Items under \$5 million                            | 6060             | 115    | 05 | 01..... | Volume 5 - 57  |
| Joint Communications Support Element (JCSE)        | 3302             | 79     | 02 | 14..... | Volume 2 - 757 |
| Joint Precision Approach and Landing System(JPALS) | 2867             | 60     | 02 | 09..... | Volume 2 - 465 |
| LCAC                                               | 0970             | 20     | 01 | 09..... | Volume 1 - 493 |
| LCS ASW Mission Modules                            | 1602             | 33     | 01 | 15..... | Volume 1 - 711 |
| LCS Class Support Equipment                        | 0944             | 13     | 01 | 09..... | Volume 1 - 361 |
| LCS Common Mission Modules Equipment               | 1600             | 31     | 01 | 15..... | Volume 1 - 689 |
| LCS In-Service Modernization                       | 1604             | 35     | 01 | 15..... | Volume 1 - 733 |
| LCS MCM Mission Modules                            | 1601             | 32     | 01 | 15..... | Volume 1 - 699 |

**UNCLASSIFIED**

# UNCLASSIFIED

## Navy • Budget Estimates FY 2019 • Procurement

| Line Item Title                         | Line Item Number | Line # | BA | BSA     | Page           |
|-----------------------------------------|------------------|--------|----|---------|----------------|
| LCS SUW Mission Modules                 | 1603             | 34     | 01 | 15..... | Volume 1 - 723 |
| LHA/LHD Midlife                         | 0933             | 9      | 01 | 09..... | Volume 1 - 289 |
| LPD Class Support Equipment             | 0946             | 15     | 01 | 09..... | Volume 1 - 377 |
| LSD Midlife & Modernization             | 1610             | 36     | 01 | 16..... | Volume 1 - 741 |
| Legacy Airborne MCM                     | 4248             | 94     | 03 | 03..... | Volume 3 - 89  |
| MIO Intel Exploitation Team             | 3417             | 81     | 02 | 15..... | Volume 2 - 801 |
| Medical Support Equipment               | 8109             | 123    | 07 | 02..... | Volume 5 - 159 |
| Meteorological Equipment                | 4226             | 92     | 03 | 03..... | Volume 3 - 77  |
| Minesweeping System Replacement         | 2622             | 52     | 02 | 07..... | Volume 2 - 287 |
| NAVSTAR GPS Receivers (Space)           | 2657             | 54     | 02 | 07..... | Volume 2 - 311 |
| Naval MIP Support Equipment             | 8114             | 125    | 07 | 02..... | Volume 5 - 169 |
| Naval Mission Planning Systems          | 2876             | 61     | 02 | 09..... | Volume 2 - 471 |
| Naval Tact Cmd Supt Sys (NTCSS)         | 2611             | 49     | 02 | 07..... | Volume 2 - 253 |
| Navy Command and Control System (NCCS)  | 2618             | 51     | 02 | 07..... | Volume 2 - 279 |
| Navy Multiband Terminal (NMT)           | 3216             | 78     | 02 | 13..... | Volume 2 - 735 |
| Network Tactical Common Data Link (CDL) | 2950             | 68     | 02 | 10..... | Volume 2 - 567 |
| Next Generation Enterprise Service      | 8164             | 133    | 07 | 05..... | Volume 5 - 223 |
| Nuclear Alterations                     | 1480             | 30     | 01 | 15..... | Volume 1 - 685 |
| Operating Forces IPE                    | 1445             | 29     | 01 | 14..... | Volume 1 - 649 |
| Operating Forces Supt Equip             | 8118             | 126    | 07 | 02..... | Volume 5 - 175 |

UNCLASSIFIED

# UNCLASSIFIED

## Navy • Budget Estimates FY 2019 • Procurement

| Line Item Title                  | Line Item Number | Line # | BA | BSA     | Page           |
|----------------------------------|------------------|--------|----|---------|----------------|
| Other Navigation Equipment       | 0670             | 4      | 01 | 06..... | Volume 1 - 41  |
| Passenger Carrying Vehicles      | 6003             | 108    | 05 | 01..... | Volume 5 - 1   |
| Physical Security Equipment      | 8128             | 129    | 07 | 02..... | Volume 5 - 197 |
| Physical Security Vehicles       | 6075             | 116    | 05 | 01..... | Volume 5 - 69  |
| Pollution Control Equipment      | 0935             | 10     | 01 | 09..... | Volume 1 - 315 |
| Pollution Control Equipment      | 6058             | 114    | 05 | 01..... | Volume 5 - 53  |
| RADIAC                           | 2920             | 65     | 02 | 10..... | Volume 2 - 537 |
| Reactor Components               | 1020             | 26     | 01 | 10..... | Volume 1 - 613 |
| Reactor Power Units              | 1010             | 25     | 01 | 10..... | Volume 1 - 609 |
| SPQ-9B Radar                     | 2026             | 37     | 02 | 02..... | Volume 2 - 1   |
| SSN Acoustic Equipment           | 2150             | 39     | 02 | 02..... | Volume 2 - 39  |
| SSN Combat Control Systems       | 5420             | 102    | 04 | 05..... | Volume 4 - 87  |
| SURTASS                          | 2237             | 44     | 02 | 03..... | Volume 2 - 133 |
| Satellite Communications Systems | 3215             | 77     | 02 | 13..... | Volume 2 - 709 |
| Shallow Water MCM                | 2624             | 53     | 02 | 07..... | Volume 2 - 301 |
| Ship Communications Automation   | 3050             | 73     | 02 | 11..... | Volume 2 - 621 |
| Ship Gun Systems Equipment       | 5111             | 98     | 04 | 02..... | Volume 4 - 1   |
| Ship Missile Support Equipment   | 5231             | 99     | 04 | 03..... | Volume 4 - 7   |
| Shipboard IW Exploit             | 2360             | 46     | 02 | 05..... | Volume 2 - 193 |
| Shipboard Tactical Comms         | 3010             | 72     | 02 | 11..... | Volume 2 - 611 |

UNCLASSIFIED

**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

| Line Item Title                            | Line Item Number | Line # | BA | BSA     | Page           |
|--------------------------------------------|------------------|--------|----|---------|----------------|
| Sonobuoys - All Types                      | 4048             | 88     | 03 | 01..... | Volume 3 - 1   |
| Spares and Repair Parts                    | 9020             | 134    | 08 | 01..... | Volume 5 - 231 |
| Special Purpose Supply Systems             | 7069             | 119    | 06 | 01..... | Volume 5 - 89  |
| Standard Boats                             | 1210             | 28     | 01 | 12..... | Volume 1 - 635 |
| Strategic Missile Systems Equip            | 5358             | 101    | 04 | 04..... | Volume 4 - 63  |
| Strategic Platform Support Equip           | 0950             | 17     | 01 | 09..... | Volume 1 - 439 |
| Strategic Platform Support Equip           | 2676             | 56     | 02 | 07..... | Volume 2 - 329 |
| Sub Periscope, Imaging and Supt Equip Prog | 0840             | 5      | 01 | 09..... | Volume 1 - 133 |
| Submarine Acoustic Warfare System          | 2210             | 41     | 02 | 03..... | Volume 2 - 93  |
| Submarine Batteries                        | 0945             | 14     | 01 | 09..... | Volume 1 - 371 |
| Submarine Broadcast Support                | 3107             | 75     | 02 | 12..... | Volume 2 - 651 |
| Submarine Communication Equipment          | 3130             | 76     | 02 | 12..... | Volume 2 - 673 |
| Submarine Life Support System              | 0990             | 24     | 01 | 09..... | Volume 1 - 603 |
| Submarine Support Equipment                | 0941             | 11     | 01 | 09..... | Volume 1 - 333 |
| Submarine Training Device Mods             | 5661             | 106    | 04 | 07..... | Volume 4 - 149 |
| Supply Equipment                           | 7025             | 117    | 06 | 01..... | Volume 5 - 73  |
| Surface Combatant HM&E                     | 0200             | 3      | 01 | 02..... | Volume 1 - 21  |
| Surface Power Equipment                    | 0131             | 1      | 01 | 01..... | Volume 1 - 1   |
| Surface Ship Torpedo Def (SSTD)            | 2213             | 42     | 02 | 03..... | Volume 2 - 121 |
| Surface Training Equipment                 | 5664             | 107    | 04 | 07..... | Volume 4 - 159 |

**UNCLASSIFIED**



**UNCLASSIFIED**

Navy • Budget Estimates FY 2019 • Procurement

| Line Item Title                                   | Line Item Number | Line # | BA | BSA     | Page           |
|---------------------------------------------------|------------------|--------|----|---------|----------------|
| Tactical Vehicles                                 | 6028             | 112    | 05 | 01..... | Volume 5 - 41  |
| Tactical/Mobile C4I Systems                       | 2906             | 62     | 02 | 10..... | Volume 2 - 477 |
| Tomahawk Support Equipment                        | 5253             | 100    | 04 | 03..... | Volume 4 - 57  |
| Training Support Equipment                        | 8081             | 120    | 07 | 01..... | Volume 5 - 93  |
| Training and Education Equipment                  | 8101             | 121    | 07 | 01..... | Volume 5 - 113 |
| UMCS-Unman Carrier Aviation(UCA)Mission Cntrl Stn | 4269             | 97     | 03 | 03..... | Volume 3 - 131 |
| Undersea Warfare Support Equipment                | 2176             | 40     | 02 | 02..... | Volume 2 - 85  |
| Underwater EOD Programs                           | 0977             | 21     | 01 | 09..... | Volume 1 - 497 |
| Virginia Class Support Equipment                  | 0942             | 12     | 01 | 09..... | Volume 1 - 343 |
| Weapons Range Support Equipment                   | 4204             | 89     | 03 | 03..... | Volume 3 - 13  |

**UNCLASSIFIED**

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|                                                                                                                                                                  |                    |                |                                               |                     |                    |                      |                                                             |                |                |                            |                    |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|-----------------------------------------------|---------------------|--------------------|----------------------|-------------------------------------------------------------|----------------|----------------|----------------------------|--------------------|------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                |                    |                |                                               |                     |                    |                      |                                                             |                |                | <b>Date:</b> February 2018 |                    |                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2026 / SPQ-9B Radar |                |                |                            |                    |                  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                         |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      | <b>Other Related Program Elements:</b> N/A                  |                |                |                            |                    |                  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                             |                    |                |                                               |                     |                    |                      |                                                             |                |                |                            |                    |                  |
| <b>Resource Summary</b>                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                              | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>     |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                    | -                  | -              | -                                             | -                   | -                  | -                    | -                                                           | -              | -              | -                          | -                  | -                |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                               | 191.564            | 10.376         | 20.086                                        | 20.309              | 0.000              | 20.309               | 26.315                                                      | 27.949         | 28.480         | 25.958                     | 763.419            | 1,114.456        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                            | -                  | -              | -                                             | -                   | -                  | -                    | -                                                           | -              | -              | -                          | -                  | -                |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                  | 191.564            | 10.376         | 20.086                                        | 20.309              | 0.000              | 20.309               | 26.315                                                      | 27.949         | 28.480         | 25.958                     | 763.419            | 1,114.456        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                            | -                  | -              | -                                             | -                   | -                  | -                    | -                                                           | -              | -              | -                          | -                  | -                |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                      | <b>191.564</b>     | <b>10.376</b>  | <b>20.086</b>                                 | <b>20.309</b>       | <b>0.000</b>       | <b>20.309</b>        | <b>26.315</b>                                               | <b>27.949</b>  | <b>28.480</b>  | <b>25.958</b>              | <b>763.419</b>     | <b>1,114.456</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                    |                    |                |                                               |                     |                    |                      |                                                             |                |                |                            |                    |                  |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                         | -                  | 0.550          | 0.287                                         | 1.003               | -                  | 1.003                | 0.666                                                       | 0.117          | 0.130          | 0.144                      | Continuing         | Continuing       |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                       | -                  | -              | -                                             | -                   | -                  | -                    | -                                                           | -              | -              | -                          | -                  | -                |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                           | -                  | -              | -                                             | -                   | -                  | -                    | -                                                           | -              | -              | -                          | -                  | -                |

**Description:**  
The FY 2019 funding request was reduced by \$.126 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

This program provides for procurement of AN/SPQ-9B Radars whose primary mission is to detect and track low flying Anti-Ship Missile targets in heavy clutter. The mission of the AN/SPQ-9B has been expanded to include the capability to detect and classify periscopes. The Periscope Detection and Discrimination (PDD) capability has been designed and incorporated to operate concurrently with the Anti-Ship Missile Defense (ASMD) capability.

[BR5IN AN/SPQ-9B FMP INSTALLATIONS]: Provided funding to install AN/SPQ-9B Radar systems. AN/SPQ-9B systems are installed using Alteration Installation Teams (AITs) that require Planning Yard Design Services Allocation (DSA) funds one and two years prior to installation. Advanced Planning (AP) is required one year prior to installation.

[BR6IN AN/SPQ-9B NON FMP INSTALLATIONS]: Provided funding for the installation of equipment for Land Based Test Sites (LBTS).

[P40A / BR040 TRANSMITTER UPGRADE FMP]: Funding was provided for installations of AN/SPQ-9B Transmitter Upgrades on LPD-17.

[P40A / BR040 TRANSMITTER UPGRADE NON-FMP EQUIPMENT]: Funding provided for Transmitter Upgrade Processor installations at Surface Warfare Engineering Facility (SWEF) and Combat Systems Engineering Development Site (CSEDS) (both non-FMP).

[P40A / BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)]: Procures product improvements generated by Engineering Change Proposals (ECPs); corrects problems reported by Fleet units; upgrades unreliable components and replaces obsolete components and parts no longer in production for AN/SPQ-9B Radar; and addresses supportability concerns. Purchases and installs ECPs, including Antenna Shock Upgrade Kits, Antenna Radar Components, Digital Signal Processor (DSP) Kits, Periscope Detection and Discrimination (PDD) Kits and engineering change kit hardware components. Antenna Shock Upgrade Kits are installed during Antenna Restorations. DSP and PDD kits are installed conjunctively via Alteration Installation Team (AIT) and can be accomplished outside of a CNO Availability.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               | <b>Date:</b> February 2018                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               | <b>P-1 Line Item Number / Title:</b><br>2026 / SPQ-9B Radar |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                  |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><br>[P40A / BR830 AN/SPQ-9B PRODUCTION SUPPORT]: Provides support for production of hardware and hardware components and is composed primarily of Warfare Center Activity support, Software Support Activity (SSA), Integrated Logistics Agent (ILA), Acquisition Engineering Agent (AEA), Technical Design Agent (TDA) and Professional Support Services (PSS). Also includes support for cybersecurity compliance and software certification.<br><br>[P3A / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT]: Procures AN/SPQ-9B Radars to add Anti-Ship Missile Defense (ASMD) capability to Shipboard Combat Systems. Procures radars to support combat systems on the following ship classes: CG, LHA, DDG, CVN, LHD, LPD, U.S. Coast Guard National Security Cutter and a Training Unit. Systems procured for Cruisers/Destroyers (CRUDES) and Amphibious Ships in FY14 and beyond will also include the Periscope Detection and Discrimination (PDD) capability. |                                               |                                                             |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------|--|-------------------------------------------------------------|--------------------------------------------|----------------------------|--|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                |  |  |  |                                               |  |                                                             |                                            | <b>Date:</b> February 2018 |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars |  |  |  |                                               |  | <b>P-1 Line Item Number / Title:</b><br>2026 / SPQ-9B Radar |                                            |                            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                         |  |  |  | <b>Program Elements for Code B Items:</b> N/A |  |                                                             | <b>Other Related Program Elements:</b> N/A |                            |  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                             |  |  |  |                                               |  |                                                             |                                            |                            |  |

| Exhibits Schedule |                                               |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|-----------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                        | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | SPQ-9B Radar                                  |             |       |                | - / 126.428                              | - / 1.245                                | - / 4.169                                | - / 3.033                                | - / -                                    | - / 3.033                                |
| P-3a              | 1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT (TBD) |             |       |                | - / 65.136                               | - / 9.131                                | - / 15.917                               | - / 17.276                               | - / 0.000                                | - / 17.276                               |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>         |             |       |                | <b>- / 191.564</b>                       | <b>- / 10.376</b>                        | <b>- / 20.086</b>                        | <b>- / 20.309</b>                        | <b>- / 0.000</b>                         | <b>- / 20.309</b>                        |

| Exhibits Schedule |                                               |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|-----------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                        | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | SPQ-9B Radar                                  |             |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT (TBD) |             |       |                | - / 18.758                               | - / 19.682                               | - / 20.451                               | - / 20.846                               | - / 680.206                              | - / 867.403                              |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>         |             |       |                | <b>- / 26.315</b>                        | <b>- / 27.949</b>                        | <b>- / 28.480</b>                        | <b>- / 25.958</b>                        | <b>- / 763.419</b>                       | <b>- / 1,114.456</b>                     |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |            |                   |                                                      |            |                   |                |            |                   |                | Date: February 2018                     |                   |                |            |                   |  |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|-----------------------------------------|-------------------|----------------|------------|-------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2    |       |                |                |            |                   |                |            |                   | P-1 Line Item Number / Title:<br>2026 / SPQ-9B Radar |            |                   |                |            |                   |                | Aggregated Items Title:<br>SPQ-9B Radar |                   |                |            |                   |  |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018                                              |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                         |                   | FY 2019 Total  |            |                   |  |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                       | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                              | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |  |
| 1) BR040 AN/SPQ-9B RADAR                                                    |       |                |                |            |                   |                |            |                   |                                                      |            |                   |                |            |                   |                |                                         |                   |                |            |                   |  |
| 1.1) BR040 ANTENNA                                                          | A     |                | 2,529K         | 7          | 17.701            | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 1.2) BR040 ANTENNA TEST STAND                                               | A     |                | 1,025K         | 1          | 1.025             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 1.3) BR040 TRANSMITTER UPGRADE FMP                                          | A     |                | -              | -          | 12.961            | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 1.4) BR040 TRANSMITTER UPGRADE NON-FMP EQUIPMENT                            | A     |                | -              | -          | 2.958             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| Subtotal: 1) BR040 AN/SPQ-9B RADAR                                          |       |                | -              | -          | 34.645            | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 2) BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)                       |       |                |                |            |                   |                |            |                   |                                                      |            |                   |                |            |                   |                |                                         |                   |                |            |                   |  |
| 2.1) BR042 MISCELLANEOUS ECPs <sup>(1)</sup>                                | A     |                | -              | -          | 38.280            | -              | -          | 0.401             | -                                                    | -          | 2.103             | -              | -          | 0.928             | -              | -                                       | -                 | -              | -          | 0.928             |  |
| 2.2) BR042 ANTENNA SHOCK UPGRADE KITS                                       | A     |                | 527,428.57     | 7          | 3.692             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 2.3) BR042 DIGITAL SIGNAL PROCESSOR KITS - PROCUREMENTS                     | A     |                | 380,800.00     | 5          | 1.904             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 2.4) BR042 DIGITAL SIGNAL PROCESSOR KITS - INSTALLS                         | A     |                | 56,000.00      | 5          | 0.280             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 2.5) BR042 PDD KITS - PROCUREMENT                                           | A     |                | 700,555.56     | 9          | 6.305             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| 2.6) BR042 PDD KITS - INSTALLS                                              | A     |                | 240,000.00     | 9          | 2.160             | -              | -          | -                 | -                                                    | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |  |
| Subtotal: 2) BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)             |       |                | -              | -          | 52.621            | -              | -          | 0.401             | -                                                    | -          | 2.103             | -              | -          | 0.928             | -              | -                                       | -                 | -              | -          | 0.928             |  |
| 3) BR830 AN/SPQ-9B PRODUCTION SUPPORT                                       |       |                |                |            |                   |                |            |                   |                                                      |            |                   |                |            |                   |                |                                         |                   |                |            |                   |  |
| 3.1) BR830 AN/SPQ-9B PRODUCTION SUPPORT <sup>(2)</sup>                      | A     |                | -              | -          | 17.535            | -              | -          | 0.844             | -                                                    | -          | 2.066             | -              | -          | 2.105             | -              | -                                       | -                 | -              | -          | 2.105             |  |
| Subtotal: 3) BR830 AN/SPQ-9B PRODUCTION SUPPORT                             |       |                | -              | -          | 17.535            | -              | -          | 0.844             | -                                                    | -          | 2.066             | -              | -          | 2.105             | -              | -                                       | -                 | -              | -          | 2.105             |  |
| 4) BRCA1 AN/SPQ-9B RADAR COMPONENTS                                         |       |                |                |            |                   |                |            |                   |                                                      |            |                   |                |            |                   |                |                                         |                   |                |            |                   |  |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |                                                      |                   |                |            |                   |                |            |                   |                | Date: February 2018                     |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|-----------------------------------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2    |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2026 / SPQ-9B Radar |                   |                |            |                   |                |            |                   |                | Aggregated Items Title:<br>SPQ-9B Radar |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                      |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                         |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                           | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                              | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 4.1) BRCA1 AN/SPQ-9B RADAR COMPONENTS                                       | A     |                | 7,400K         | 2          | 14.800            | -              | -                                                    | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |
| Subtotal: 4) BRCA1 AN/SPQ-9B RADAR COMPONENTS                               |       |                | -              | -          | 14.800            | -              | -                                                    | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |
| 5) BRCA2 AN/SPQ-9B RADAR COMPONENTS                                         |       |                |                |            |                   |                |                                                      |                   |                |            |                   |                |            |                   |                |                                         |                   |                |            |                   |
| 5.1) BRCA2 AN/SPQ-9B RADAR COMPONENTS                                       | A     |                | 6,800K         | 1          | 6.800             | -              | -                                                    | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |
| Subtotal: 5) BRCA2 AN/SPQ-9B RADAR COMPONENTS                               |       |                | -              | -          | 6.800             | -              | -                                                    | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |
| 6) WAXXX ACQUISITION WORKFORCE FUND                                         |       |                |                |            |                   |                |                                                      |                   |                |            |                   |                |            |                   |                |                                         |                   |                |            |                   |
| 6.1) WAXXX ACQUISITION WORKFORCE FUND-2009                                  | A     |                | -              | -          | 0.027             | -              | -                                                    | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |
| Subtotal: 6) WAXXX ACQUISITION WORKFORCE FUND                               |       |                | -              | -          | 0.027             | -              | -                                                    | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                       | -                 | -              | -          | -                 |
| Total                                                                       |       |                | -              | -          | 126.428           | -              | -                                                    | 1.245             | -              | -          | 4.169             | -              | -          | 3.033             | -              | -                                       | -                 | -              | -          | 3.033             |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

**Footnotes:**

- (1) Miscellaneous ECPs primarily funds product improvements, corrects problems reported by Fleet units, upgrades unreliable components, replaces obsolete components/parts no longer in production, and addresses supportability concerns.
- (2) AN/SPQ-9B Production Support provides support for production of hardware and production hardware components and is composed primarily of Warfare Center Activity support, Software Support Activity (SSA), Integrated Logistics Agent (ILA), Acquisition Engineering Agent (AEA), Technical Design Agent (TDA) and Professional Support Services (PSS). Also includes support for cybersecurity compliance packages in the enterprise mission assurance support service (eMASS), element, and combat system certifications.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|------------------------------------------------------|-------------|---------------|-----------------|---------------------|-------------------------------------------------------------------------|---------|-------------|---------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |                                                      |             |               |                 | Date: February 2018 |                                                                         |         |             |         |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         | P-1 Line Item Number / Title:<br>2026 / SPQ-9B Radar |             |               |                 |                     | Modification Number / Title:<br>1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT |         |             |         |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |         |         |                                                      |             |               | MDAP/MAIS Code: |                     |                                                                         |         |             |         |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                         | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021             | FY 2022                                                                 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -           | -       | -       | -                                                    | -           | -             | -               | -                   | -                                                                       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 65.136      | 9.131   | 15.917  | 17.276                                               | 0.000       | 17.276        | 18.758          | 19.682              | 20.451                                                                  | 20.846  | 680.206     | 867.403 |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | -       | -       | -                                                    | -           | -             | -               | -                   | -                                                                       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 65.136      | 9.131   | 15.917  | 17.276                                               | 0.000       | 17.276        | 18.758          | 19.682              | 20.451                                                                  | 20.846  | 680.206     | 867.403 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | -       | -       | -                                                    | -           | -             | -               | -                   | -                                                                       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 65.136      | 9.131   | 15.917  | 17.276                                               | 0.000       | 17.276        | 18.758          | 19.682              | 20.451                                                                  | 20.846  | 680.206     | 867.403 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -       | -                                                    | -           | -             | -               | -                   | -                                                                       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -           | -       | -       | -                                                    | -           | -             | -               | -                   | -                                                                       | -       | -           | -       |
| Description:<br>[BR040 AN/SPQ-9B RADAR FMP EQUIPMENT] Procures AN/SPQ-9B Radars to add Anti-Ship Missile Defense (ASMD) capability to Shipboard Combat Systems. Procures radars to support combat systems on the following ship classes: CG, LHA, DDG, CVN, LHD, LPD, U.S. Coast Guard National Security Cutter and a Training Unit. Systems procured for Cruisers/Destroyer (CRUDES) and Amphibious Ships in FY14 and beyond also include the Periscope Detection and Discrimination (PDD) capability.                                                                                                                                     |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| Notes: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| 1) The current production contract was awarded in December 2015. This contract includes a total of twelve FY14, FY15 and FY16 funded SPQ-9B radars being procured across several appropriations (OPN, SCN, FMS). The first radar delivered 24 months after award. All follow-on radars will be delivered at a rate of one every other month.                                                                                                                                                                                                                                                                                                |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| 2) SPQ-9B was moved from BLI 5110 to BLI 2026 in FY2004. Prior to 2004, the procurement of the first five AN/SPQ-9B systems was funded under the Mk 86 program under BLI 5110. The installation costs for four out of five of these installs were included in the 2026 budget. This explains the difference of 81 installations and only 77 procurements in this budget (delta 4).                                                                                                                                                                                                                                                          |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| 3) Due to the shipyard requirement to fully fund the DDG 84 installation prior to start of the availability in January 2019, funding for the installation of the FY17 radar on DDG 84 is in FY19 despite the planned radar delivery of November 2019. The DDG 84 availability starts in January 2019 and ends in April 2020.                                                                                                                                                                                                                                                                                                                |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| 4) The radar unit cost increase above inflation from FY18 (\$5,712K) to FY19 (\$6,298K) is due to the total Economic Order Quantity procurement of 20-25 radars in FY18 (Including SCN and FMS units) versus 6 in FY19.                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |
| 5) The FMP unit install cost in FY18 of three radars (\$728K) appears lower than the FY19 unit install cost (\$1.075M) due to FY16 budget installation funding decisions which required retainment of FY14 and FY15 installation funds in order to accommodate a reduction in FY16. The resulting surplus in FY14 and FY15 installation funds were used to forward fund part of the installation costs, thus enabling FY18 installation funding to be reduced. The installation funding profile returns to its nominal phasing for FY19 and out and the total funding (sum of DSA, AP, and Installation funds) remains stable across hulls. |             |         |         |                                                      |             |               |                 |                     |                                                                         |         |             |         |



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|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                             |                                |                                |                                |                                        | <b>Date:</b> February 2018                                                     |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2026 / SPQ-9B Radar |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                             |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                                |                                |                                |                                |  |
| <b>Models of Systems Affected:</b> AN/SPQ-9B RADAR FMP EQUIPMENT                |                                |                                |                                | <b>Modification Type:</b> TBD                               |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604501N |                                                                                |                                |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                         | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                                                                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                                |                                |                                |                                |  |
| <i>Modification Item 1 of 1:</i> BR040 AN/SPQ-9B RADAR FMP EQUIPMENT            |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                                |                                |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                                |                                |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                                |                                |                                |                                |  |
| 1.1.1) BR040 AN/SPQ-9B RADAR FMP EQUIPMENT - NonOrganic <sup>(3)</sup>          | 7 / 44.190                     | 1 / 5.712                      | 2 / 11.424                     | 2 / 12.597                                                  | - / -                          | 2 / 12.597                     | 2 / 12.864                     | 2 / 13.646                             | 2 / 14.305                                                                     | 2 / 14.577                     | 57 / 464.094                   | 77 / 593.409                   |  |
| 1.1.2) BR040 AN/SPQ-9B NON-RECURRING (TDP) - Organic                            | - / 1.888                      | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                          | - / -                          | - / -                          | - / 1.888                      |  |
| <i>Subtotal: Recurring</i>                                                      | - / 46.078                     | - / 5.712                      | - / 11.424                     | - / 12.597                                                  | - / -                          | - / 12.597                     | - / 12.864                     | - / 13.646                             | - / 14.305                                                                     | - / 14.577                     | - / 464.094                    | - / 595.297                    |  |
| <i>Subtotal: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT</i>                            | 7 / 46.078                     | 1 / 5.712                      | 2 / 11.424                     | 2 / 12.597                                                  | - / -                          | 2 / 12.597                     | 2 / 12.864                     | 2 / 13.646                             | 2 / 14.305                                                                     | 2 / 14.577                     | 57 / 464.094                   | 77 / 595.297                   |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 46.078                     | - / 5.712                      | - / 11.424                     | - / 12.597                                                  | - / -                          | - / 12.597                     | - / 12.864                     | - / 13.646                             | - / 14.305                                                                     | - / 14.577                     | - / 464.094                    | - / 595.297                    |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                                |                                |                                |                                |  |
| <i>Modification Item 1 of 1:</i> BR040 AN/SPQ-9B RADAR FMP EQUIPMENT            | - / 19.058                     | - / 3.419                      | - / 4.493                      | - / 4.679                                                   | - / 0.000                      | - / 4.679                      | - / 5.894                      | - / 6.036                              | - / 6.146                                                                      | - / 6.269                      | - / 216.112                    | - / 272.106                    |  |
| <i>Subtotal: Installation</i>                                                   | - / 19.058                     | - / 3.419                      | - / 4.493                      | - / 4.679                                                   | - / -                          | - / 4.679                      | - / 5.894                      | - / 6.036                              | - / 6.146                                                                      | - / 6.269                      | - / 216.112                    | - / 272.106                    |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                                |                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>65.136</b>                  | <b>9.131</b>                   | <b>15.917</b>                  | <b>17.276</b>                                               | <b>0.000</b>                   | <b>17.276</b>                  | <b>18.758</b>                  | <b>19.682</b>                          | <b>20.451</b>                                                                  | <b>20.846</b>                  | <b>680.206</b>                 | <b>867.403</b>                 |  |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2026 / SPQ-9B Radar |           |                                |           |                                |                                      |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                | <b>MDAP/MAIS Code:</b>               |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> BR040 AN/SPQ-9B RADAR FMP EQUIPMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: NORTHROP GRUMMAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                | Manufacturer Location: BALTIMORE, MD |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                | Production Leadtime (in Months): 18  |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                              |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | May 2018                       |           |                                |           | May 2018                       |           |                                |           | Mar 2019                                                    |           |                                |           | Mar 2020                       |                                      |                                |           | Mar 2021                       |           |                                                                                |           | Mar 2022                       |           |                                |           | Mar 2023       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Nov 2019                       |           |                                |           | Jan 2020                       |           |                                |           | Sep 2020                                                    |           |                                |           | Sep 2021                       |                                      |                                |           | Sep 2022                       |           |                                                                                |           | Sep 2023                       |           |                                |           | Sep 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                          |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                      | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                 |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                              |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                 |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | 8 / 19.058                     |           | 0 / 2.881                      |           | 3 / 2.184                      |           | - / -                          |           | - / -                                                       |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 11 / 24.123                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | 0 / 0.538                      |           | 0 / 1.216                      |           | 1 / 1.075                      |           | 0 / 0.000                                                   |           | 1 / 1.075                      |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 1 / 2.829                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | 0 / 1.093                      |           | 0 / 2.474                      |           | 0 / 0.000                                                   |           | 0 / 2.474                      |           | 2 / 2.186                      |                                      | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 2 / 5.753                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 1.130                      |           | 0 / 0.000                                                   |           | 0 / 1.130                      |           | 0 / 2.556                      |                                      | 2 / 2.258                      |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 2 / 5.944                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                       |           | - / -                          |           | 0 / 1.152                      |                                      | 0 / 2.604                      |           | 2 / 2.302                      |           | - / -                                                                          |           | 0 / 0.000                      |           | 2 / 6.058                      |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                       |           | - / -                          |           | - / -                          |                                      | 0 / 1.174                      |           | 0 / 2.648                      |           | 2 / 2.358                                                                      |           | 0 / 0.000                      |           | 2 / 6.180                      |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                       |           | - / -                          |           | - / -                          |                                      | - / -                          |           | 0 / 1.196                      |           | 0 / 2.670                                                                      |           | 2 / 2.370                      |           | 2 / 6.236                      |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                       |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | 0 / 1.241                                                                      |           | 2 / 5.242                      |           | 2 / 6.483                      |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                       |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                          |           | 57 / 208.500                   |           | 57 / 208.500                   |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | 8 / 19.058                     |           | 0 / 3.419                      |           | 3 / 4.493                      |           | 1 / 4.679                      |           | 0 / 0.000                                                   |           | 1 / 4.679                      |           | 2 / 5.894                      |                                      | 2 / 6.036                      |           | 2 / 6.146                      |           | 2 / 6.269                                                                      |           | 61 / 216.112                   |           | 81 / 272.106                   |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                              |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                   | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8          | -                              | -         | -                              | -         | -                              | 1         | 1                              | 1         | -                                                           | 1         | -                              | -         | -                              | 1                                    | 1                              | -         | -                              | 1         | 1                                                                              | -         | 1                              | 1         | -                              | -         | 1              | 1         | -         | -         | 61        | 81         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8          | -                              | -         | -                              | -         | -                              | -         | 1                              | 1         | 1                                                           | -         | -                              | -         | -                              | -                                    | 2                              | 1         | -                              | -         | 1                                                                              | 1         | -                              | -         | 1                              | 1         | -              | -         | 1         | 1         | 61        | 81         |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <sup>(3)</sup> 1) The current production contract was awarded in December 2015. This contract includes a total of twelve FY14, FY15 and FY16 funded SPQ-9B radars being procured across several appropriations (OPN, SCN, FMS). The first radar delivered 24 months after award. All follow-on radars will be delivered at a rate of one every other month. 2) SPQ-9B was moved from BLI 5110 to BLI 2026 in FY2004. Prior to 2004, the procurement of the first five AN/SPQ-9B systems was funded under the Mk 86 program under BLI 5110. The installation costs for four out of five of these installs were included in the 2026 budget. This |            |                                |           |                                |           |                                |           |                                |           |                                                             |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             | <b>Date:</b> February 2018                                                     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>P-1 Line Item Number / Title:</b><br>2026 / SPQ-9B Radar | <b>Modification Number / Title:</b><br>1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                             | <b>MDAP/MAIS Code:</b>                                                         |
| <p>explains the difference of 81 installations and only 77 procurements in this budget (delta 4). 3) Due to the shipyard requirement to fully fund the DDG 84 installation prior to start of the availability in January 2019, funding for the installation of the FY17 radar on DDG 84 is in FY19 despite the planned radar delivery of November 2019. The DDG 84 availability starts in January 2019 and ends in April 2020. 4) The radar unit cost increase above inflation from FY18 (\$5,712K) to FY19 (\$6,298K) is due to the total Economic Order Quantity procurement of 20-25 radars in FY18 (including SCN and FMS units) versus 6 in FY19. 5) The FMP unit install cost in FY18 of three radars (\$728K) appears lower than the FY19 unit install cost (\$1.075M) due to FY16 budget installation funding decisions which required retainment of FY14 and FY15 installation funds in order to accommodate a reduction in FY16. The resulting surplus in FY14 and FY15 installation funds were used to forward fund part of the installation costs, thus enabling FY18 installation funding to be reduced. The installation funding profile returns to its nominal phasing for FY19 and out and the total funding (sum of DSA, AP, and Installation funds) remains stable across hulls.</p> |                                                             |                                                                                |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                |                    |                |                |                                               |                    |                      |                                                                            |                                                           |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                                           |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                         |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                            | <b>Other Related Program Elements:</b> 0205620N, 0603553N |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                             |                    |                |                |                                               |                    |                      |                                                                            |                                                           |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                             | <b>FY 2021</b>                                            | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                    | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                                         | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                               | 1,790.423          | 87.824         | 102.222        | 115.459                                       | 0.000              | 115.459              | 125.586                                                                    | 127.452                                                   | 132.673        | 135.329                    | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                                         | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                  | 1,790.423          | 87.824         | 102.222        | 115.459                                       | 0.000              | 115.459              | 125.586                                                                    | 127.452                                                   | 132.673        | 135.329                    | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                                         | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                      | <b>1,790.423</b>   | <b>87.824</b>  | <b>102.222</b> | <b>115.459</b>                                | <b>0.000</b>       | <b>115.459</b>       | <b>125.586</b>                                                             | <b>127.452</b>                                            | <b>132.673</b> | <b>135.329</b>             | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                    |                    |                |                |                                               |                    |                      |                                                                            |                                                           |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                         | -                  | 2.058          | 0.869          | 3.091                                         | -                  | 3.091                | 1.080                                                                      | 0.906                                                     | 1.001          | 1.112                      | Continuing         | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                       | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                                         | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                           | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                                         | -              | -                          | -                  | -                 |

**Description:**

The FY 2019 funding request was reduced by \$.498 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

The FY 2019 funding request was reduced by \$5.553 million to account for the availability of prior year execution balances.

Anti-Submarine Warfare (ASW) remains a Navy core competency in a dynamic and uncertain maritime environment. U.S. adversaries continue to develop asymmetric capabilities and capacities to deter, disrupt, or delay the entry of U.S. and allied naval forces, and pose a constant challenge as the Maritime Strategy is implemented. Evolving submarine technologies offer enhanced stealth, speed, endurance, weapons, and operational proficiency, trends foretelling that the adversary submarine of the future will have a significantly larger sphere of influence, while presenting less vulnerability to ASW forces. The effective offensive engagement range of the adversary submarine of the future will continue to match or outrange individual U.S. and multinational platform sensors and weapons in many tactical environments. Submarines are an increasing threat to all Naval and Allied ships, particularly modern diesel subs and faster torpedoes. Not only can the presence of potential hostile submarines delay naval combatant action until they are located and neutralized, submarines can also disrupt all seaborne logistics supply for any ground campaign as well as maritime commerce. ASW forces must be effective in all operating environments, ranging from the deep open ocean to the littorals, and are key to countering adversarial anti-access and area denial strategies.

The AN/SQQ-89(V) Surface Ship ASW Combat System provides integrated Undersea Warfare (USW) combat management, fire control, command and control, and on-board training to enable surface combatants to engage USW targets in both open ocean and littoral environments. The AN/SQQ-89(V) is a system comprised of many subsystems, which integrate the helo and its sensors, the ship's own organic sensors, weapons, torpedo detection, and a high fidelity Surface ASW Synthetic Trainer (SAST). Variants of the AN/SQQ-89(V) are currently in operation on practically all in-service CG47 and DDG51 Class Surface Combatants.

AN/SQQ-89A(V)15 Surface Ship USW Combat System Upgrade - Detailed Description:  
A major upgrade to the AN/SQQ-89(V) legacy system, the AN/SQQ-89A(V)15 significantly decreases ship vulnerability to torpedo attack, improves surface ship USW shallow water warfighting capability in the littoral, and mitigates Commercial-Off-The-Shelf (COTS) obsolescence and supportability issues. The AN/SQQ-89A(V)15 upgrade was reported as a critical need for surface ASW operations by SECNAV. A Fleet Forces Command (FFC) Urgent Operational Needs (UON) report identified the Fleet need for AN/SQQ-89A(V)15 upgrades. The need for the AN/SQQ-89A(V)15 is also articulated in the U.S. Pacific Command (PACOM) Integrated Priorities List (IPL); in Office of the Chief of Naval Operations (OPNAV) 'Surface ASW Capabilities Build' funding priorities letters; in a 7th Fleet Bottom Up review report; and in the U.S. Fleet Forces Command (USFFC) ASW Integrated Prioritized Capabilities List (IPCL).

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| <p>The AN/SQQ-89A(V)15 upgrade is programmed for backfit on: Select CG47 Class Baseline 3 and 4 (CG59-73) ships via OP,N BLI 0960 (Cruiser Modernization); DDG51 Class Flight I/II (DDG51-78) ships via OP,N BLI 0900 (DDG Modernization) and OP,N BLI 2136 (represented here); and DDG51 Class Flight IIA and follow (DDG79+) ships via OP,N BLI 2136 (represented here).</p> <p>The AN/SQQ-89A(V)15 upgrade, developed under RDT&amp;E,N PE 0205620N, capitalizes on previously fielded AN/SQQ-89(V)15 systems. The AN/SQQ-89A(V)15 is comprised of a tactical towed array sensor, the Multi-Function Towed Array (MFTA), and will replace standard, militarized, legacy components with Commercial-Off-The-Shelf (COTS) hardware to provide an ASW combat system with the capability for mid-frequency bistatic and multi-static sonar operations. The AN/SQQ-89A(V)15 features a mid-frequency bistatic hull/towed Sonar Echo Tracker Classifier (ETC); hull/towed Sonar with Acoustic Intercept (ACI) fused data for significantly improved torpedo defense; Handling &amp; Stowage Group (H&amp;SG) for MFTA operation; Torpedo Setting Panel (TSP); passive towed array processing; common sub/surface sensor performance and prediction; common NAVAIR/Surface Light Airborne Multi-Purpose System (LAMPS) processing; portable software; integrated supportability; and on-board training via the Surface ASW Synthetic Trainer (SAST). The AN/SQQ-89A(V)15 will be interoperable with AEGIS Weapons System (AWS) baselines; is Open Architecture (OA) compliant (meeting OA Level 3 requirements); provides significant reductions in weight, space, cooling, and power requirements over legacy AN/SQQ-89(V) systems; is Grade A shock qualified; supports Digital Fire Control Integration (DFCI) capability; and is integrated with the Battle Force Tactical Trainer (BFTT).</p> <p>AN/SQQ-89A(V)15 Technology Insertion/Refresh. Additionally, to be effective against increasingly stealthy threats in an often ambiguous undersea environment, future sensors must be environmentally adaptive, have very low false alarm rates, and exploit the full range of current and future submarine detection vulnerabilities. Via the Advanced Capability Build (ACB) process under RDT&amp;E,N PE 0205620N (ACB-13, ACB-15, ACB-17, etc.), these types of maturing/proven USW technologies will be folded into the AN/SQQ-89A(V)15 production and future technology refresh programs (fielded starting in FY 2016). Leveraging the submarine community's Acoustic Rapid Commercial-off-the-Shelf (COTS) Insertion (ARCI) process, the AN/SQQ-89A(V)15 Tech Refresh program procures upgraded software/hardware technology for all CG47/DDG51 Class surface combatant platforms with a previously fielded AN/SQQ-89A(V)15. This process has proven to manage obsolescence, take advantage of commercial development efforts, and continue to pace the threat to ensure systems remain effective well into the 21st century. Studies of the submarine and surface ASW technology show that system upgrades are most critical 6-9 years after initial installation of the AN/SQQ-89A(V)15, as failure rates within this period begin to rise. Establishing a stable technology refresh program will ensure the Fleet maintains critical Undersea Warfare capability (threat-pacing improvements) and productivity (Increased Operational Availability (Ao)) while reducing the Total Ownership Cost (TOC) to the Navy.</p> <p>AN/SQQ-89A(V)15 YEAR TO YEAR FUNDING PROFILE FROM PROCUREMENT TO INSTALL:</p> <p>1st Year - Procurement of Equipment.</p> <p>2nd Year - Ordering of incidental installation material and perform mandatory planning yard design tasks and ship checks. This is shown as a quantity of "0" with requested funds in the year before the installation of equipment.</p> <p>3rd Year - Installation of Equipment.</p> <p>An average, aggregate AN/SQQ-89A(V)15 shipset unit cost is comprised of multiple contract/funding vehicles. Additionally, these unit costs can vary as they are dependent on the pre-existing legacy AN/SQQ-89(V) configuration of each ship.</p> <p>FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.</p> <p>AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date, and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities. Fleet availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every three years in a ship's schedule.</p> <p>FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016.</p> |                                        |                                                                     |

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| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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0205620N, 0603553N                  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| YEAR-TO-YEAR BUDGET CONTROL COMPARISON:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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                            |
| <p>- FY 2018 (\$102.222 million) to FY 2019 (\$115.459 million) increase (\$+13.237 million) is due to the net effect of the following differences in FY 2019: Addition/ramp-up of a major MFTA Engineering Change (EC) effort, 2 additional A(V)15 FLT I/II buys, 3 additional A(V)15 Tech Refresh buys, 1 additional FOT&amp;E event, 1 additional SCSC Wallops upgrade, 2 less CSSQT events, 1 less A(V)15 FLT IIA install, 1 less A(V)15 FLT I/II install, 1 less FLTASWTRACEN upgrade, 1 less SSES upgrade.</p> <p>The FY 2019 funding request was reduced by \$5.553 million to account for the availability of prior year execution balances. This was driven by competition award issues which delayed the award of a new AN/SQQ-89A(V)15 OK-410 Handling &amp; Stowage Group (H&amp;SG) contract.</p> <p>[P40A / DB400 - DDG51 CLASS SYSTEM COMPONENTS - SQQ-89A(V)15]: DB400 Cost Elements/Descriptions as Follows:</p> <p>[P40A / SYSTEM UPDATES (NON RECURRING ENGINEERING)]: 1.1 Consists of the NRE efforts associated with the technology refresh/replacement of legacy AN/SQQ-89(V) equipment with updated Commercial-Off-The-Shelf (COTS) processors, including material procurement, fabrication, and integration of Government Furnished Property (GFP), as performed by the prime contractor. Hardware reviews will be conducted on an annual basis to determine if hardware changes are warranted based on Commercial-Off-The-Shelf (COTS) obsolescence and to identify applicable state-of-the-practice hardware components. This line also includes start-up/transition funding required for the AN/SQQ-89(V) prime in the first year of each new production/design agent contract.</p> <p>[P40A / EC'S (ENGINEERING CHANGES)]: 1.2 Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades to previously fielded and in-production AN/SQQ-89A(V)15 systems. Funding will be used to support non-recurring first article test efforts associated with the changing Commercial-Off-The-Shelf (COTS) environment as well as Reliability, Maintainability, and Availability (RM&amp;A) modifications requested by the Fleet; correct deficiencies identified through Fleet use; upgrade unreliable components; replace obsolete components; and correct design errors found during testing.</p> <p>Note: This line includes a major FY 2018 (\$4.707M) and FY 2019 (\$10.118M) Multi-Function Towed Array (MFTA) Engineering Change (EC) which is required to address and resolve deficiencies in the current MFTA TB-37 version's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues. In FY 2018, funding (\$4.707M of the EC's \$6.448M budget) is required to complete the shipboard towed array receiver EC. In FY 2019, funding (\$10.118M of the EC's \$11.731M budget) is required to assemble the array and towed array receiver, conduct array and receiver acceptance test &amp; evaluation efforts to certify they meet current AN/SQQ-89A(V)15 USW Combat System performance envelope specifications, and implement the EC in production. The MFTA TB-37 is the towed array version that is currently in production and employed by the AN/SQQ-89A(V)15 USW Combat System.</p> <p>[P40A / ILS (INTEGRATED LOGISTICS SUPPORT)]: 1.3 Funding is provided for all ILS planning and coordination elements associated with every AN/SQQ-89A(V)15 modification/procurement/installation, including: configuration management and control of the hardware and software associated with each modification such as Maintenance and Material Management (3M); planned and corrective maintenance procedures and drawings; supporting the procurement of upgrades to Technical Training Equipment (TTE) for shore training sites; changes to maintenance concepts and associated updates to technical documentation, such as technical manuals; development of revisions to both operator and maintenance training materials as part of the initial training curriculum development; revisions to the Navy Training System Plan; initial conduct of instructor training (train-the-trainer) until such time that the training community assumes the responsibility; modifications to supply support related provisioning data and identification of related changes to Allowance Parts Lists (APLs) and Program Support Data (PSD) spares procurement lists; and Packaging, Handling, Storage and Transportation (PHST) support during the procurement, Installation and Checkout (INCO), and testing stages of the AN/SQQ-89A(V)15 to meet evolving capabilities.</p> <p>[P40A / AIE (AEGIS INTEGRATION EVENTS)]: 1.4 Recurring engineering support services associated with AN/SQQ-89A(V)15 equipment at the Surface Combatant Systems Center (SCSC) Wallops Island, VA test facility to support land-based testing, external interface testing, and AEGIS Integration Event (AIE) production systems testing for interoperability risk reduction analysis purposes as necessary to certify that each incremental AN/SQQ-89A(V)15 hardware/software build is compatible with multiple AEGIS Weapons System (AWS) baselines prior to installation.</p> <p>[P40A / CSSQT (COMBAT SYSTEMS SHIP QUALIFICATION TRIALS)]: 1.5 CSSQTs are required per Naval Sea Systems Instruction 90963.1C for all ships undergoing significant conversion/modernization availabilities. CSSQTs consist of a series of at-sea exercises and tests to verify/certify the AN/SQQ-89A(V)15 or AN/SQQ-89A(V)15 Technology Refresh system has been installed properly and can be operated and maintained safely and effectively. CSSQTs follow every AN/SQQ-89A(V)15 FLT I/II/IIA first-of-its-kind or AN/SQQ-89A(V)15 Technology Refresh installation. Note: CSSQT costs are dependent on the number, scope and complexity of CSSQTs planned per Fiscal Year (FY). CSSQTs planned for AN/SQQ-89A(V)15 FLT I/II/IIA installs are higher in cost, scope and complexity than those for AN/SQQ-89A(V)15</p> |                                        |                                                                     |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        | Date: February 2018                                                 |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        | P-1 Line Item Number / Title:<br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Program Elements for Code B Items: N/A | Other Related Program Elements: 0205620N, 0603553N                  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        |                                                                     |
| Technology Refreshes. In FY 2017 (\$4.206M), five (5) CSSQTs are planned (two for AN/SQQ-89A(V)15 FLT IIA installs and three for AN/SQQ-89A(V)15 Technology Refresh installs). In FY 2018 (\$6.686M), seven (7) CSSQTs are planned (four for AN/SQQ-89A(V)15 FLT I/II/IIA installs and three for AN/SQQ-89A(V)15 Technology Refresh installs). In FY 2019 (\$4.903M), five (5) CSSQTs are planned (two for AN/SQQ-89A(V)15 FLT I/II/IIA installs and three for AN/SQQ-89A(V)15 Technology Refresh installs).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |                                                                     |
| [P40A / FOT&E (FOLLOW-ON OPERATIONAL TEST & EVALUATION)]: 1.6 Represents the final independent test of each new increment of the AN/SQQ-89A(V)15 production baseline (i.e. ACB-13, ACB-15, ACB-17, etc.) conducted in support of the Director, Operational Test and Evaluation Title X review and report to the Congress. Follow-On Operational Test & Evaluation events are conducted to ensure each increment meets the operational effectiveness and suitability requirements for each incremental AN/SQQ-89 ACB production baseline, along with its readiness and performance goals. Each test cycle is planned the year after initial ACB baseline fielding to allow time for installation and to verify performance prior to conducting the FOT&E. Note: FOT&E costs are primarily biennial driven, and dependent on the scope and complexity of the next new AN/SQQ-89 Advanced Capability Build (ACB) production baseline release being tested. In FY 2017 (\$1.542M), funding is required to conduct an FOT&E event on the next new AN/SQQ-89 ACB production baseline release. There is no requirement to conduct an FOT&E event in FY 2018. In FY 2019 (\$2.048M), funding is required to conduct an FOT&E event on the next new AN/SQQ-89 ACB production baseline release. |                                        |                                                                     |
| [P40A / FLTASWTRACEN (FLEET ASW TRAINING CENTER)]: 1.7 Upgrade of AN/SQQ-89A(V)15 training equipment for the Fleet ASW Training Center, San Diego, CA. Training system improvements are a critical factor in achieving warfighter competencies and mission readiness. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines and to implement Fleet prioritized warfighting training improvements to meet evolving capabilities. Note: FLTASWTRACEN costs are primarily biennial driven, and dependent on the scope and complexity of training equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. There is no requirement to upgrade equipment at the FLTASWTRACEN in FY 2017. In FY 2018 (\$0.945M), funding is required to upgrade the equipment at FLTASWTRACEN. There is no requirement to upgrade equipment at the FLTASWTRACEN in FY 2019.                                                                                                                                                                                                          |                                        |                                                                     |
| [P40A / SSES (SURFACE SHIP ENGINEERING SITE)]: 1.8 Procurement of AN/SQQ-89A(V)15 equipment for land-based sites, including the SSES at the prime vendor's facility, to support production system integration and interoperability testing. Equipment includes simulation hardware, test tools, fabrication and test of mod kits (hardware and operational software), and laboratory equipment. Equipment must be upgraded periodically to ensure continued support of the latest backfit AN/SQQ-89A(V)15 Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. Note: SSES costs are primarily biennial driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. There is no requirement to upgrade equipment at the SSES land-based site in FY 2017. In FY 2018 (\$2.032M), funding is required to upgrade the equipment at the SSES land-based site. There is no requirement to upgrade equipment at the SSES land-based site in FY 2019.                                                                                                                                             |                                        |                                                                     |
| [P40A / SCSC (SURFACE COMBATANT SYSTEMS CENTER)]: 1.9 Procurement of AN/SQQ-89A(V)15 equipment for land-based sites including the Surface Combatant Systems Center (SCSC) at Wallops Island, VA, to support production system integration and interoperability testing. Equipment includes simulation hardware, test tools, fabrication and test of mod kits (hardware and operational software), and laboratory equipment. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. Note: SCSC Wallops costs are primarily biennial driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. In FY 2017 (\$1.957M), funding is required to upgrade the equipment at the SCSC Wallops land-based site. There is no requirement to upgrade equipment at the SCSC Wallops land-based site in FY 2018. In FY 2019 (\$1.910M), funding is required to upgrade the equipment at the SCSC Wallops land-based site.                                                                                     |                                        |                                                                     |
| [P40A / MFTA (MULTI-FUNCTION TOWED ARRAY) MAJOR EQUIPMENT]: 1.10 Procurement of MFTA full module sets required for expeditious replacement in the event of major damage (the TB-37 MFTA component is considered a principle item). The MFTA is a key component of the AN/SQQ-89A(V)15 USW Combat System upgrade on Surface Combatants and enables ships to have active bi-statics, Continuous Active Sonar (CAS), adaptive beamforming, passive bellringers, and the use of new sensors for advanced torpedo detection. FY 2019 and prior MFTA procurements are of the TB-37 version. FY 2020 and forward MFTA procurements are of the TB-37X version (major engineering change to be completed in FY 2019) which is required to address and resolve deficiencies in the current MFTA TB-37 version's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.                                                                                                                                                                                                                                                                                                  |                                        |                                                                     |
| [P40A / DB830 - PRODUCTION ENGINEERING - SQQ-89A(V)15]: DB830 Cost Element/Description as Follows:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |                                                                     |



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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        | Date: February 2018                                                 |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        | P-1 Line Item Number / Title:<br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Program Elements for Code B Items: N/A | Other Related Program Elements: 0205620N, 0603553N                  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |                                                                     |
| <p>[P40A / PRODUCTION ENGINEERING]: 2.1 Funding is for AN/SQQ-89A(V)15 program In-Service Engineering Agent (ISEA), Software Support Activity (SSA), Acquisition Engineering Agent (AEA), and Technical Design Agent (TDA) efforts in performing the following functions: writing of contracts; review and evaluation of production design data, documentation and Contract Data Requirements Lists (CDRLs); letting of production contract awards; on-site engineering support at the prime integrator's facility; production configuration control and quality assurance (Production Inspection Test (PIT) and Production Reliability Acceptance Test (PRAT)); witnessing of segment/system integration tests and preparation of reports; conduct of first article and factory acceptance tests; collection of performance metrics; generation/assessment of Software Problem Reports (SPRs) and coordination with vendors; value and maintenance engineering; coordination with AEGIS regarding interface definition and ship integration; support safety review and AEGIS Integration Events (AIE); provide plans, procedures and inputs to support Information Assurance (IA) mandates; provide status reports and technical briefings; support meetings with program office; and all other production support efforts directly related to delivery of AN/SQQ-89A(V)15 software and hardware.</p> |                                        |                                                                     |
| <p>[P40A / DB900 - CONSULTING SERVICES - SQQ-89A(V)15]: DB900 Cost Element/Description as Follows:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |                                                                     |
| <p>[P40A / CONSULTING SERVICES]: 3.1 Funding to provide assistance in the following areas: program and financial management; system specification validation; production planning; business case and market analyses; vendor cost, schedule, performance, production, and contract deliverable monitoring; installation planning and coordination; Integrated Logistics Support (ILS) asset management, planning, documentation, and coordination; and evaluation of Engineering Change Proposals (ECPs).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |                                                                     |
| <p>[P3A / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE]: See the following:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        |                                                                     |
| <p>AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE - COST CODE DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on all DDG79-112 Flight IIA ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |                                                                     |
| <p>AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE - COST CODE DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                        |                                                                     |
| <p>[P3A / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE]: See the following:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        |                                                                     |
| <p>AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE - COST CODE DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on select DDG51-78 FLT I/II ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                                                                     |
| <p>AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE - COST CODE DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                                                                     |
| <p>[P3A - 3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE]: See the following:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |                                                                     |
| <p>AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE - COST CODE DB400 PROCUREMENT: Procurement of a subset of AN/SQQ-89A(V)15 equipment, specifically the Multi-Function Towed Array (MFTA) and Handling &amp; Stowage Group (H&amp;SG), for subsequent installation on all DDG113 and follow ships during their Post Delivery Availability (PDA) or Post Shakedown Availability (PSA) periods, to upgrade the ASW sonar suite from an AN/SQQ-89(V)15 configuration to the AN/SQQ-89A(V)15 configuration.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |                                                                     |
| <p>AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE - COST CODE DB6IN INSTALLATION: Physical installation of the H&amp;SG and MFTA on DDG113 and follow ships during their PDA or PSA period which includes the installation of an egress, under-deck stiffeners, cables, bulkheads, opening and closing of the transom, the winch, levelwind, fairlead and control station, decking, painting, and final</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |                                                                     |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                               | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0205620N, 0603553N                  |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br>system testing, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.<br><br>[P3A - 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH]: See the following:<br><br>AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH - COST CODE DB400 PROCUREMENT: Procurement of software/hardware technology upgrades for all CG47/DDG51 Class surface combatant platforms with a previously fielded AN/SQQ-89A(V)15, as necessary to manage obsolescence, take advantage of commercial development efforts, and continue to pace the threat and ensure the system remains effective well into the 21st century. Updating the hardware and software will ensure the Fleet maintains critical Undersea Warfare capability while reducing obsolescence. Establishing a technology refresh program provides a method for rapid response to meet Fleet Anti-Submarine Warfare (ASW) requirements.<br><br>AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH - COST CODE DB6IN INSTALLATION: Funding is for the physical installation of the AN/SQQ-89A(V)15 Technology Refresh upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard. |                                               |                                                                            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                |  |  |                                               |  |                                                                            |                                                           | <b>Date:</b> February 2018 |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars |  |  |                                               |  | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                                           |                            |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                         |  |  | <b>Program Elements for Code B Items:</b> N/A |  |                                                                            | <b>Other Related Program Elements:</b> 0205620N, 0603553N |                            |  |  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                             |  |  |                                               |  |                                                                            |                                                           |                            |  |  |

  

| Exhibits Schedule |                                                                                       |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|---------------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                                | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM                                                |             |       |                | - / 1,300.582                            | - / 21.853                               | - / 28.278                               | - / 30.643                               | - / -                                    | - / 30.643                               |
| P-3a              | 1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE (Warfighting Capability)              |             |       |                | - / 405.366                              | - / 21.966                               | - / 23.437                               | - / 6.737                                | - / 0.000                                | - / 6.737                                |
| P-3a              | 2 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE (Warfighting Capability)     |             |       |                | - / 20.274                               | - / 9.515                                | - / 10.904                               | - / 23.785                               | - / 0.000                                | - / 23.785                               |
| P-3a              | 3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE (Warfighting Capability) |             |       |                | - / 23.659                               | - / 13.255                               | - / 16.205                               | - / 16.211                               | - / 0.000                                | - / 16.211                               |
| P-3a              | 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH (Warfighting Capability)           |             |       |                | - / 40.542                               | - / 21.235                               | - / 23.398                               | - / 38.083                               | - / 0.000                                | - / 38.083                               |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                                 |             |       |                | <b>- / 1,790.423</b>                     | <b>- / 87.824</b>                        | <b>- / 102.222</b>                       | <b>- / 115.459</b>                       | <b>- / 0.000</b>                         | <b>- / 115.459</b>                       |

  

| Exhibits Schedule |                                                                                       |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|---------------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                                | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM                                                |             |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE (Warfighting Capability)              |             |       |                | - / 5.841                                | - / 12.071                               | - / 1.211                                | - / 18.669                               | - / 7.535                                | - / 502.833                              |
| P-3a              | 2 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE (Warfighting Capability)     |             |       |                | - / 22.778                               | - / 22.145                               | - / 31.865                               | - / 7.344                                | - / 9.800                                | - / 158.410                              |
| P-3a              | 3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE (Warfighting Capability) |             |       |                | - / 17.247                               | - / 17.475                               | - / 17.821                               | - / 18.188                               | Continuing                               | Continuing                               |
| P-3a              | 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH (Warfighting Capability)           |             |       |                | - / 49.261                               | - / 40.127                               | - / 51.213                               | - / 59.895                               | Continuing                               | Continuing                               |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                                 |             |       |                | <b>- / 125.586</b>                       | <b>- / 127.452</b>                       | <b>- / 132.673</b>                       | <b>- / 135.329</b>                       | <b>Continuing</b>                        | <b>Continuing</b>                        |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

  

**Justification:**  
 The OP,N BLI 2136 budget primarily supports the upgrade of legacy, in-service AN/SQQ-89(V) systems to the superior AN/SQQ-89A(V)15 USW Combat System baseline. Additionally, the OP,N BLI 2136 budget will be responsible for periodic technology refresh initiatives in conjunction with previously fielded AN/SQQ-89A(V)15 systems across all CG47 and DDG51 Class platforms (software/hardware technology upgrades/insertions) to pace the threat and remain effective well into the 21st century.

**YEAR-TO-YEAR BUDGET CONTROL COMPARISON:**

- FY 2018 (\$102.222 million) to FY 2019 (\$115.459 million) increase (\$+13.237 million) is due to the net effect of the following differences in FY 2019: Addition/ramp-up of a major MFTA Engineering Change (EC) effort, 2 additional A(V)15 FLT I/II buys, 3 additional A(V)15 Tech Refresh buys, 1 additional FOT&E event, 1 additional SCSC Wallops upgrade, 2 less CSSQT events, 1 less A(V)15 FLT IIA install, 1 less A(V)15 FLT I/II install, 1 less FLTASWTRACEN upgrade, 1 less SSSES upgrade.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy      |          |                       |                   |               |                      |                   |               |                      |                                                                     |               |                      |                   |               |                      |                   | Date: February 2018                                                  |                      |                   |               |                      |  |
|----------------------------------------------------------------------------------|----------|-----------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------|---------------------------------------------------------------------|---------------|----------------------|-------------------|---------------|----------------------|-------------------|----------------------------------------------------------------------|----------------------|-------------------|---------------|----------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2         |          |                       |                   |               |                      |                   |               |                      | P-1 Line Item Number / Title:<br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |               |                      |                   |               |                      |                   | Aggregated Items Title:<br>AN/SQQ-89(V) SURFACE ASW<br>COMBAT SYSTEM |                      |                   |               |                      |  |
| Item Number /<br>Title [DODIC]                                                   | ID<br>CD | MDAP/<br>MAIS<br>Code | Prior Years       |               |                      | FY 2017           |               |                      | FY 2018                                                             |               |                      | FY 2019 Base      |               |                      | FY 2019 OCO       |                                                                      |                      | FY 2019 Total     |               |                      |  |
|                                                                                  |          |                       | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$)                                                   | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each)                                                        | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |  |
| 1) DB400 - DDG51 CLASS SYSTEM COMPONENTS - SQQ-89A(V)15                          |          |                       |                   |               |                      |                   |               |                      |                                                                     |               |                      |                   |               |                      |                   |                                                                      |                      |                   |               |                      |  |
| 1.1) SYSTEM<br>UPDATES (NON<br>RECURRING<br>ENGINEERING) <sup>(1)</sup>          |          |                       | -                 | -             | 15.663               | -                 | -             | 1.809                | -                                                                   | -             | 1.848                | -                 | -             | 1.529                | -                 | -                                                                    | -                    | -                 | -             | 1.529                |  |
| 1.2) EC'S<br>(ENGINEERING<br>CHANGES) <sup>(2)</sup>                             |          |                       | -                 | -             | 1,093.930            | -                 | -             | 1.705                | -                                                                   | -             | 6.448                | -                 | -             | 11.731               | -                 | -                                                                    | -                    | -                 | -             | 11.731               |  |
| 1.3) ILS<br>(INTEGRATED<br>LOGISTICS<br>SUPPORT) <sup>(3)</sup>                  |          |                       | -                 | -             | 36.732               | -                 | -             | 3.219                | -                                                                   | -             | 3.086                | -                 | -             | 3.096                | -                 | -                                                                    | -                    | -                 | -             | 3.096                |  |
| 1.4) AIE (AEGIS<br>INTEGRATION<br>EVENTS) <sup>(4)</sup>                         |          |                       | -                 | -             | 20.315               | -                 | -             | 2.640                | -                                                                   | -             | 2.587                | -                 | -             | 0.979                | -                 | -                                                                    | -                    | -                 | -             | 0.979                |  |
| 1.5) CSSQT<br>(COMBAT<br>SYSTEMS SHIP<br>QUALIFICATION<br>TRIALS) <sup>(5)</sup> |          |                       | -                 | -             | 27.143               | -                 | -             | 4.206                | -                                                                   | -             | 6.686                | -                 | -             | 4.903                | -                 | -                                                                    | -                    | -                 | -             | 4.903                |  |
| 1.6) FOT&E<br>(FOLLOW-ON<br>OPERATIONAL TEST<br>& EVALUATION) <sup>(6)</sup>     |          |                       | -                 | -             | 4.943                | -                 | -             | 1.542                | -                                                                   | -             | -                    | -                 | -             | 2.048                | -                 | -                                                                    | -                    | -                 | -             | 2.048                |  |
| 1.7)<br>FLTASWTRACEN<br>(FLEET ASW<br>TRAINING CENTER)<br><sup>(7)</sup>         |          |                       | -                 | -             | 3.472                | -                 | -             | -                    | -                                                                   | -             | 0.945                | -                 | -             | -                    | -                 | -                                                                    | -                    | -                 | -             | -                    |  |
| 1.8) SSES<br>(SURFACE SHIP<br>ENGINEERING SITE)<br><sup>(8)</sup>                |          |                       | -                 | -             | 12.165               | -                 | -             | -                    | -                                                                   | -             | 2.032                | -                 | -             | -                    | -                 | -                                                                    | -                    | -                 | -             | -                    |  |
| 1.9) SCSC<br>(SURFACE<br>COMBATANT<br>SYSTEMS CENTER)<br><sup>(9)</sup>          |          |                       | -                 | -             | 2.301                | -                 | -             | 1.957                | -                                                                   | -             | -                    | -                 | -             | 1.910                | -                 | -                                                                    | -                    | -                 | -             | 1.910                |  |
| Subtotal: 1) DB400 - DDG51<br>CLASS SYSTEM COMPONENTS -<br>SQQ-89A(V)15          |          |                       | -                 | -             | 1,216.664            | -                 | -             | 17.078               | -                                                                   | -             | 23.632               | -                 | -             | 26.196               | -                 | -                                                                    | -                    | -                 | -             | 26.196               |  |
| 2) DB830 - PRODUCTION ENGINEERING - SQQ-89A(V)15                                 |          |                       |                   |               |                      |                   |               |                      |                                                                     |               |                      |                   |               |                      |                   |                                                                      |                      |                   |               |                      |  |
| 2.1) PRODUCTION<br>ENGINEERING <sup>(10)</sup>                                   |          |                       | -                 | -             | 66.155               | -                 | -             | 3.309                | -                                                                   | -             | 3.204                | -                 | -             | 3.191                | -                 | -                                                                    | -                    | -                 | -             | 3.191                |  |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                | Date: February 2018 |                   |                |            |                   |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                |                |            |                   | P-1 Line Item Number / Title:<br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |            |                   |                |            |                   | Aggregated Items Title:<br>AN/SQQ-89(V) SURFACE ASW<br>COMBAT SYSTEM |            |                   |                |                     |                   |                |            |                   |  |
| Item Number / Title [DODIC]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                             |            |                   | FY 2018        |            |                   | FY 2019 Base                                                         |            |                   | FY 2019 OCO    |                     |                   | FY 2019 Total  |            |                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                       | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)          | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |  |
| Subtotal: 2) DB830 - PRODUCTION ENGINEERING - SQQ-89A(V)15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |                | -              | -          | 66.155            | -                                                                   | -          | 3.309             | -              | -          | 3.204             | -                                                                    | -          | 3.191             | -              | -                   | -                 | -              | -          | 3.191             |  |
| 3) DB900 - CONSULTING SERVICES - SQQ-89A(V)15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| 3.1) CONSULTING SERVICES <sup>(11)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                | -              | -          | 17.763            | -                                                                   | -          | 1.466             | -              | -          | 1.442             | -                                                                    | -          | 1.256             | -              | -                   | -                 | -              | -          | 1.256             |  |
| Subtotal: 3) DB900 - CONSULTING SERVICES - SQQ-89A(V)15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                | -              | -          | 17.763            | -                                                                   | -          | 1.466             | -              | -          | 1.442             | -                                                                    | -          | 1.256             | -              | -                   | -                 | -              | -          | 1.256             |  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                | -              | -          | 1,300.582         | -                                                                   | -          | 21.853            | -              | -          | 28.278            | -                                                                    | -          | 30.643            | -              | -                   | -                 | -              | -          | 30.643            |  |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| Footnotes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| <sup>(1)</sup> 1.1 SYSTEM UPDATES (NON RECURRING ENGINEERING): Consists of the NRE efforts associated with the technology refresh/replacement of legacy AN/SQQ-89(V) equipment with updated Commercial-Off-The-Shelf (COTS) processors, including material procurement, fabrication, and integration of Government Furnished Property (GFP), as performed by the prime contractor. Hardware reviews will be conducted on an annual basis to determine if hardware changes are warranted based on Commercial-Off-The-Shelf (COTS) obsolescence and to identify applicable state-of-the-practice hardware components. This line also includes start-up/transition funding required for the AN/SQQ-89(V) prime in the first year of each new production/design agent contract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| <sup>(2)</sup> 1.2 EC'S (ENGINEERING CHANGES): Consistent of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades to previously fielded and in-production AN/SQQ-89A(V)15 systems. Funding will be used to support non-recurring first article test efforts associated with the changing Commercial-Off-The-Shelf (COTS) environment as well as Reliability, Maintainability, and Availability (RM&A) modifications requested by the Fleet; correct deficiencies identified through Fleet use; upgrade unreliable components; replace obsolete components; and correct design errors found during testing. The FY 2017 (\$1.705M) to FY 2018 (\$6.448M) to FY 2019 (\$11.731M) increases are driven by a major FY 2018-2019 Multi-Function Towed Array (MFTA) Engineering Change (EC) which is required to address and resolve deficiencies in the current MFTA TB-37 version's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues. In FY 2018, funding (\$4.707M of the EC's \$6.448M budget) is required to complete the shipboard towed array receiver EC. In FY 2019, funding (\$10.118M of the EC's \$11.731M budget) is required to assemble the array and towed array receiver, conduct array and receiver acceptance test & evaluation efforts to certify they meet current AN/SQQ-89A(V)15 USW Combat System performance envelope specifications, and implement the EC in production. The MFTA TB-37 is the towed array version that is currently in production and employed by the AN/SQQ-89A(V)15 USW Combat System. |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| <sup>(3)</sup> 1.3 ILS (INTEGRATED LOGSTICS SUPPORT): Funding is provided for all ILS planning and coordination elements associated with every AN/SQQ-89A(V)15 modification/procurement/installation, including: configuration management and control of the hardware and software associated with each modification such as Maintenance and Material Management (3M); planned and corrective maintenance procedures and drawings; supporting the procurement of upgrades to Technical Training Equipment (TTE) for shore training sites; changes to maintenance concepts and associated updates to technical documentation, such as technical manuals; development of revisions to both operator and maintenance training materials as part of the initial training curriculum development; revisions to the Navy Training System Plan; initial conduct of instructor training (train-the-trainer) until such time that the training community assumes the responsibility; modifications to supply support related provisioning data and identification of related changes to Allowance Parts Lists (APLs) and Program Support Data (PSD) spares procurement lists; and Packaging, Handling, Storage and Transportation (PHST) support during the procurement, Installation and Checkout (INCO), and testing stages of the AN/SQQ-89A(V)15 to meet evolving capabilities.                                                                                                                                                                                                                                                                                                       |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| <sup>(4)</sup> 1.4 AIE (AEGIS INTEGRATION EVENTS): Recurring engineering support services associated with AN/SQQ-89A(V)15 equipment at the Surface Combatant Systems Center (SCSC) Wallops Island, VA test facility to support land-based testing, external interface testing, and AEGIS Integration Event (AIE) production systems testing for interoperability risk reduction analysis purposes as necessary to certify that each incremental AN/SQQ-89A(V)15 hardware/software build is compatible with multiple AEGIS Weapons System (AWS) baselines prior to installation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| <sup>(5)</sup> 1.5 CSSQT (Combat Systems Qualification Trials): CSSQTs are required per Naval Sea Systems Instruction 90963.1C for all ships undergoing significant conversion/modernization availabilities. CSSQTs consist of a series of at-sea exercises and tests to verify/certify the AN/SQQ-89A(V)15 or AN/SQQ-89A(V)15 Technology Refresh system has been installed properly and can be operated and maintained safely and effectively. CSSQTs follow every AN/SQQ-89A(V)15 FLT I/II/III first-of-its-kind or AN/SQQ-89A(V)15 Technology Refresh installation. CSSQT costs are dependent on the number, scope and complexity of CSSQTs planned per Fiscal Year (FY). CSSQTs planned for AN/SQQ-89A(V)15 FLT I/II/III installs are higher in cost, scope and complexity than those for AN/SQQ-89A(V)15 Technology Refreshes. In FY 2017 (\$4.206M), five (5) CSSQTs are planned (two for AN/SQQ-89A(V)15 FLT IIA installs and three for AN/SQQ-89A(V)15 Technology Refresh installs). In FY 2018 (\$6.686M), seven (7) CSSQTs are planned (four for AN/SQQ-89A(V)15 FLT I/II/III installs and three for AN/SQQ-89A(V)15 Technology Refresh installs). In FY 2019 (\$4.903M), five (5) CSSQTs are planned (two for AN/SQQ-89A(V)15 FLT I/II/III installs and three for AN/SQQ-89A(V)15 Technology Refresh installs).                                                                                                                                                                                                                                                                                                                                                       |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |
| <sup>(6)</sup> 1.6 FOT&E (Follow-On Operational Test & Evaluation): Represents the final independent test of each new increment of the AN/SQQ-89A(V)15 production baseline (i.e. ACB-13, ACB-15, ACB-17, etc.) conducted in support of the Director, Operational Test and Evaluation Title X review and report to the Congress. Follow-On Operational Test & Evaluation events are conducted to ensure each increment meets the operational effectiveness and suitability requirements for each incremental AN/SQQ-89 ACB production baseline, along with its readiness and performance goals. Each test cycle is planned the year after initial ACB baseline fielding to allow time for installation and to verify performance prior to conducting the FOT&E. FOT&E costs are primarily biennial driven, and dependent on the scope and complexity of the next new AN/SQQ-89 Advanced Capability Build (ACB) production baseline release being tested. In FY 2017 (\$1.542M),                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                                                                      |            |                   |                |                     |                   |                |            |                   |  |

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| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                            | <b>Date:</b> February 2018                                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys | <b>Aggregated Items Title:</b><br>AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM |
| <p>funding is required to conduct an FOT&amp;E event on the next new AN/SQQ-89 ACB production baseline release. There is no requirement to conduct an FOT&amp;E event in FY 2018. In FY 2019 (\$2.048M), funding is required to conduct an FOT&amp;E event on the next new AN/SQQ-89 ACB production baseline release.</p> <p>(7) 1.7 FLTASWTRACEN (Fleet ASW Training Center, San Diego, CA): Upgrade of AN/SQQ-89A(V)15 training equipment for the Fleet ASW Training Center, San Diego, CA. Training system improvements are a critical factor in achieving warfighter competencies and mission readiness. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines and to implement Fleet prioritized warfighting training improvements to meet evolving capabilities. FLTASWTRACEN costs are primarily biennial driven, and dependent on the scope and complexity of training equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. There is no requirement to upgrade equipment at the FLTASWTRACEN in FY 2017. In FY 2018 (\$0.945M), funding is required to upgrade the equipment at FLTASWTRACEN. There is no requirement to upgrade equipment at the FLTASWTRACEN in FY 2019.</p> <p>(8) 1.8 SSES (Surface Ship Engineering Site, Prime Vendor's Facility): Procurement of AN/SQQ-89A(V)15 equipment for land-based sites, including the SSES at the prime vendor's facility, to support production system integration and interoperability testing. Equipment includes simulation hardware, test tools, fabrication and test of mod kits (hardware and operational software), and laboratory equipment. Equipment must be upgraded periodically to ensure continued support of the latest backfit AN/SQQ-89A(V)15 Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. SSES costs are primarily biennial driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. There is no requirement to upgrade equipment at the SSES land-based site in FY 2017. In FY 2018 (\$2.032M), funding is required to upgrade the equipment at the SSES land-based site. There is no requirement to upgrade equipment at the SSES land-based site in FY 2019.</p> <p>(9) 1.9 SCSC (Surface Combatant Systems Center, Wallops Island, VA): Procurement of AN/SQQ-89A(V)15 equipment for land-based sites including the Surface Combatant Systems Center (SCSC) at Wallops Island, VA, to support production system integration and interoperability testing. Equipment includes simulation hardware, test tools, fabrication and test of mod kits (hardware and operational software), and laboratory equipment. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. SCSC Wallops costs are primarily biennial driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. In FY 2017 (\$1.957M), funding is required to upgrade the equipment at the SCSC Wallops land-based site. There is no requirement to upgrade equipment at the SCSC Wallops land-based site in FY 2018. In FY 2019 (\$1.910M), funding is required to upgrade the equipment at the SCSC Wallops land-based site.</p> <p>(10) 2.1 PRODUCTION ENGINEERING: Funding is for AN/SQQ-89A(V)15 program In-Service Engineering Agent (ISEA), Software Support Activity (SSA), Acquisition Engineering Agent (AEA), and Technical Design Agent (TDA) efforts in performing the following functions: writing of contracts; review and evaluation of production design data, documentation and Contract Data Requirements Lists (CDRLs); letting of production contract awards; on-site engineering support at the prime integrator's facility; production configuration control and quality assurance (Production Inspection Test (PIT) and Production Reliability Acceptance Test (PRAT)); witnessing of segment/system integration tests and preparation of reports; conduct of first article and factory acceptance tests; collection of performance metrics; generation/assessment of Software Problem Reports (SPRs) and coordination with vendors; value and maintenance engineering; coordination with AEGIS regarding interface definition and ship integration; support safety review and AEGIS Integration Events (AIE); provide plans, procedures and inputs to support Information Assurance (IA) mandates; provide status reports and technical briefings; support meetings with program office; and all other production support efforts directly related to delivery of AN/SQQ-89A(V)15 software and hardware.</p> <p>(11) 3.1 CONSULTING SERVICES: Funding to provide assistance in the following areas: program and financial management; system specification validation; production planning; business case and market analyses; vendor cost, schedule, performance, production, and contract deliverable monitoring; installation planning and coordination; Integrated Logistics Support (ILS) asset management, planning, documentation, and coordination; and evaluation of Engineering Change Proposals (ECPs).</p> |                                                                            |                                                                          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                             |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                        |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                         | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                      | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 405.366            | 21.966         | 23.437         | 6.737                                                                      | 0.000              | 6.737                | 5.841                  | 12.071         | 1.211          | 18.669                                                                                 | 7.535              | 502.833        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                      | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 405.366            | 21.966         | 23.437         | 6.737                                                                      | 0.000              | 6.737                | 5.841                  | 12.071         | 1.211          | 18.669                                                                                 | 7.535              | 502.833        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                      | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>405.366</b>     | <b>21.966</b>  | <b>23.437</b>  | <b>6.737</b>                                                               | <b>0.000</b>       | <b>6.737</b>         | <b>5.841</b>           | <b>12.071</b>  | <b>1.211</b>   | <b>18.669</b>                                                                          | <b>7.535</b>       | <b>502.833</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                        |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                      | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                      | -                  | -              |
| <p><b>Description:</b><br/> [AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE] See the following:</p> <p>AN/SQQ-89A(V)15 YEAR TO YEAR FUNDING PROFILE FROM PROCUREMENT TO INSTALL:<br/> 1st Year - Procurement of Equipment.<br/> 2nd Year - Ordering of incidental installation material and perform mandatory planning yard design tasks and ship checks. This is shown as a quantity of "0" with requested funds in the year before the installation of equipment.<br/> 3rd Year - Installation of Equipment.</p> <p>AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE - COST CODE DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on all DDG79-112 Flight IIA ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship.</p> <p>AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE - COST CODE DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p> <p>The AN/SQQ-89A(V)15 requires a CNO (Chief of Naval Operations) availability period. The installation is accomplished by Alteration Installation Team (AIT) and shipyard personnel together. The AIT personnel are responsible for the removal of all AN/SQQ-89(V) legacy equipment, addition and modification of foundations, and installation, connectorization, and test of all new AN/SQQ-89A(V)15 equipment. The shipyard personnel are responsible for all rigging activities, hull access cuts, and installation of the Handling &amp; Stowage Gear (H&amp;SG) on non-tailed (i.e. no towed array) DDG51 Class Flight IIA hulls, which is required for the operation of the tactical towed sonar, the Multi-Function Towed Array (MFTA).</p> <p>AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every three years in a ship's schedule.</p> |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                        |                    |                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | <b>Date:</b> February 2018                                                             |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys | <b>Modification Number / Title:</b><br>1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                            | <b>MDAP/MAIS Code:</b>                                                                 |
| <p>FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016.</p> <p>FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.</p> |                                                                            |                                                                                        |
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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                        |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                             |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                   |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                        |                                           |                                           |  |
| <b>Models of Systems Affected:</b> Upgrade of legacy AN/SQQ-89(V) systems on all DDG79-112 ships to AN/SQQ-89A(V)15 configuration |                                           |                                           |                                           | <b>Modification Type:</b> Warfighting Capability                           |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b> 0205620N    |                                           |                                                                                        |                                           |                                           |  |
| <b>Financial Plan</b>                                                                                                             | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                                    | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                         | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                                                                   | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                              | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                                                |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                        |                                           |                                           |  |
| <i><b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE</i>                                               |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                        |                                           |                                           |  |
| <i>B Kits</i>                                                                                                                     |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                        |                                           |                                           |  |
| <i>Recurring</i>                                                                                                                  |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                        |                                           |                                           |  |
| 1.1.1) AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE - NonOrganic <sup>(12)</sup>                                                   | 30 / 275.595                              | 1 / 11.127                                | 1 / 11.328                                | - / -                                                                      | - / -                                     | - / -                                     | - / -                                     | 1 / 12.071                                | - / -                                     | 1 / 12.507                                                                             | - / -                                     | 34 / 322.628                              |  |
| <i>Subtotal: Recurring</i>                                                                                                        | - / 275.595                               | - / 11.127                                | - / 11.328                                | - / -                                                                      | - / -                                     | - / -                                     | - / -                                     | - / 12.071                                | - / -                                     | - / 12.507                                                                             | - / 0.000                                 | - / 322.628                               |  |
| <i>Subtotal: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE</i>                                                                      | 30 / 275.595                              | 1 / 11.127                                | 1 / 11.328                                | - / -                                                                      | - / -                                     | - / -                                     | - / -                                     | 1 / 12.071                                | - / -                                     | 1 / 12.507                                                                             | - / -                                     | 34 / 322.628                              |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                                              | - / 275.595                               | - / 11.127                                | - / 11.328                                | - / -                                                                      | - / -                                     | - / -                                     | - / -                                     | - / 12.071                                | - / -                                     | - / 12.507                                                                             | - / 0.000                                 | - / 322.628                               |  |
| <b>Installation</b>                                                                                                               |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                        |                                           |                                           |  |
| <i><b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE</i>                                               | - / 129.771                               | - / 10.839                                | - / 12.109                                | - / 6.737                                                                  | - / 0.000                                 | - / 6.737                                 | - / 5.841                                 | - / 0.000                                 | - / 1.211                                 | - / 6.162                                                                              | - / 7.535                                 | - / 180.205                               |  |
| <i>Subtotal: Installation</i>                                                                                                     | - / 129.771                               | - / 10.839                                | - / 12.109                                | - / 6.737                                                                  | - / -                                     | - / 6.737                                 | - / 5.841                                 | - / -                                     | - / 1.211                                 | - / 6.162                                                                              | - / 7.535                                 | - / 180.205                               |  |
| <b>Total</b>                                                                                                                      |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                        |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                          | <b>405.366</b>                            | <b>21.966</b>                             | <b>23.437</b>                             | <b>6.737</b>                                                               | <b>0.000</b>                              | <b>6.737</b>                              | <b>5.841</b>                              | <b>12.071</b>                             | <b>1.211</b>                              | <b>18.669</b>                                                                          | <b>7.535</b>                              | <b>502.833</b>                            |  |
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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                         |                                |                                |                                |                                                                            |                                |                                                      |                                | <b>Date:</b> February 2018                                                             |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                    |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                |                                                      |                                | <b>Modification Number / Title:</b><br>1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                            |                                |                                |                                |                                                                            |                                | <b>MDAP/MAIS Code:</b>                               |                                |                                                                                        |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE                                       |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                        |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                                    |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                        |                                |                                |                                |                                |
| Manufacturer Name: Lockheed Martin                                                                                 |                                |                                |                                |                                                                            |                                | Manufacturer Location: Manassas, VA                  |                                |                                                                                        |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                             |                                |                                |                                |                                                                            |                                | Production Leadtime (in Months): 18                  |                                |                                                                                        |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                       | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                                       | <b>FY 2023</b>                 |                                                                                        |                                |                                |                                |                                |
| Contract Dates                                                                                                     | Mar 2017                       | Mar 2018                       |                                |                                                                            |                                |                                                      |                                |                                                                                        |                                |                                |                                |                                |
| Delivery Dates                                                                                                     | Sep 2018                       | Sep 2019                       |                                |                                                                            |                                |                                                      |                                |                                                                                        |                                |                                |                                |                                |
| Manufacturer Name: TBD (Competitive Procurement)                                                                   |                                |                                |                                |                                                                            |                                | Manufacturer Location: TBD (Competitive Procurement) |                                |                                                                                        |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                             |                                |                                |                                |                                                                            |                                | Production Leadtime (in Months): 18                  |                                |                                                                                        |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                       | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                                       | <b>FY 2023</b>                 |                                                                                        |                                |                                |                                |                                |
| Contract Dates                                                                                                     |                                |                                |                                |                                                                            | Mar 2021                       |                                                      | Mar 2023                       |                                                                                        |                                |                                |                                |                                |
| Delivery Dates                                                                                                     |                                |                                |                                |                                                                            | Sep 2022                       |                                                      | Sep 2024                       |                                                                                        |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                                    |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                        |                                |                                |                                |                                |
| <b>Method of Implementation:</b> AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                        |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>                                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                         | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                        | 26 / 129.771                   | 2 / 10.839                     | 2 / 10.982                     | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | - / -                          | - / -                          | 0 / 0.000                      | 30 / 151.592                   |
| FY 2017                                                                                                            | - / -                          | - / -                          | 0 / 1.127                      | 1 / 5.590                                                                  | 0 / 0.000                      | 1 / 5.590                                            | - / -                          | - / -                                                                                  | - / -                          | - / -                          | 0 / 0.000                      | 1 / 6.717                      |
| FY 2018                                                                                                            | - / -                          | - / -                          | - / -                          | 0 / 1.147                                                                  | 0 / 0.000                      | 0 / 1.147                                            | 1 / 5.841                      | - / -                                                                                  | - / -                          | - / -                          | 0 / 0.000                      | 1 / 6.988                      |
| FY 2019                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | 0 / 1.211                      | 1 / 6.162                      | 0 / 0.000                      | 1 / 7.373                      |
| FY 2022                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | - / -                          | - / -                          | 1 / 7.535                      | 1 / 7.535                      |
| To Complete                                                                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                  | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                                              | 26 / 129.771                   | 2 / 10.839                     | 2 / 12.109                     | 1 / 6.737                                                                  | 0 / 0.000                      | 1 / 6.737                                            | 1 / 5.841                      | - / -                                                                                  | 0 / 1.211                      | 1 / 6.162                      | 1 / 7.535                      | 34 / 180.205                   |

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|-------------------------------------------------------------------------------------------------------------|-----|---------|----|----|----|---------|----|----|----|---------------------------------------------------------------------|----|----|----|---------|-----------------|----|----|---------|---------------------|---------------------------------------------------------------------------------|----|---------|----|----|----|---------|----|----|----|----|-----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                         |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         | Date: February 2018 |                                                                                 |    |         |    |    |    |         |    |    |    |    |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2                                    |     |         |    |    |    |         |    |    |    | P-1 Line Item Number / Title:<br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |    |    |    |         |                 |    |    |         |                     | Modification Number / Title:<br>1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |    |         |    |    |    |         |    |    |    |    |     |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                            |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         | MDAP/MAIS Code: |    |    |         |                     |                                                                                 |    |         |    |    |    |         |    |    |    |    |     |
| Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE                                       |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                 |    |         |    |    |    |         |    |    |    |    |     |
| Installation Information                                                                                    |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                 |    |         |    |    |    |         |    |    |    |    |     |
| Method of Implementation: AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                 |    |         |    |    |    |         |    |    |    |    |     |
| Installation Schedule                                                                                       |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                 |    |         |    |    |    |         |    |    |    |    |     |
|                                                                                                             | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019                                                             |    |    |    | FY 2020 |                 |    |    | FY 2021 |                     |                                                                                 |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                             |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1                                                                  | Q2 | Q3 | Q4 | Q1      | Q2              | Q3 | Q4 | Q1      | Q2                  | Q3                                                                              | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                          | 26  | -       | 1  | 1  | -  | -       | 1  | 1  | -  | -                                                                   | -  | 1  | -  | -       | 1               | -  | -  | -       | -                   | -                                                                               | -  | -       | -  | -  | -  | -       | 1  | -  | -  | 1  | 34  |
| Out                                                                                                         | 25  | 1       | -  | 1  | 1  | -       | -  | 1  | 1  | -                                                                   | -  | -  | 1  | -       | -               | 1  | -  | -       | -                   | -                                                                               | -  | -       | -  | -  | -  | -       | -  | 1  | -  | 1  | 34  |

**Footnotes:**

<sup>(12)</sup> AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every three years in a ship's schedule. FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016. FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|----------------------------------------------------------------------------------------------------|--------------------|----------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                         |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / AN/SQQ-89A(V)15 - DDG51-78<br>(SELECT) FLT I/II UPGRADE |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                    |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                     | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                  | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 20.274             | 9.515          | 10.904         | 23.785                                                                     | 0.000              | 23.785               | 22.778                 | 22.145         | 31.865         | 7.344                                                                                              | 9.800              | 158.410        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                  | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20.274             | 9.515          | 10.904         | 23.785                                                                     | 0.000              | 23.785               | 22.778                 | 22.145         | 31.865         | 7.344                                                                                              | 9.800              | 158.410        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                  | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>20.274</b>      | <b>9.515</b>   | <b>10.904</b>  | <b>23.785</b>                                                              | <b>0.000</b>       | <b>23.785</b>        | <b>22.778</b>          | <b>22.145</b>  | <b>31.865</b>  | <b>7.344</b>                                                                                       | <b>9.800</b>       | <b>158.410</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                    |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                  | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                  | -                  | -              |
| <p><b>Description:</b><br/> [AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE] See the following:</p> <p>AN/SQQ-89A(V)15 YEAR TO YEAR FUNDING PROFILE FROM PROCUREMENT TO INSTALL:<br/> 1st Year - Procurement of Equipment.<br/> 2nd Year - Ordering of incidental installation material and perform mandatory planning yard design tasks and ship checks. This is shown as a quantity of "0" with requested funds in the year before the installation of equipment.<br/> 3rd Year - Installation of Equipment.</p> <p>AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE - COST CODE DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on select DDG51-78 FLT I/II ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship. NOTE: Procurement of an AN/SQQ-89A(V)15 for DDG51 Class FLT I/II ships does not require the OK-410 Handling &amp; Stowage Group (H&amp;SG) subsystem as needed with DDG51 Class FLT IIA ships.</p> <p>AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE - COST CODE DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p> <p>The AN/SQQ-89A(V)15 requires a CNO (Chief of Naval Operations) availability period. The installation is accomplished by Alteration Installation Team (AIT) and shipyard personnel together. The AIT personnel are responsible for the removal of all AN/SQQ-89(V) legacy equipment, addition and modification of foundations, and installation, connectorization, and test of all new AN/SQQ-89A(V)15 equipment. The shipyard personnel are responsible for all rigging activities and hull access cuts.</p> <p>AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every three years in a ship's schedule.</p> |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                    |                    |                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                    |                                                                            | <b>Date:</b> February 2018                                                                      |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                               | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys | <b>Modification Number / Title:</b><br>2 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                       |                                                                            | <b>MDAP/MAIS Code:</b>                                                                          |
| FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016.                                                                                                                                 |                                                                            |                                                                                                 |
| FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues. |                                                                            |                                                                                                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                                                                                 |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                          |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   | <b>Date:</b> February 2018                                                                         |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                     |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                   |                                   |                                   |                                        |                                   | <b>Modification Number / Title:</b><br>2 / AN/SQQ-89A(V)15 - DDG51-78<br>(SELECT) FLT I/II UPGRADE |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                             |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>                 |                                   |                                                                                                    |                                   |                                   |  |
| <b>Models of Systems Affected:</b> Upgrade of legacy AN/SQQ-89(V) systems on select DDG51-78 ships to AN/SQQ-89A(V)15 configuration |                                   |                                   |                                   | <b>Modification Type:</b> Warfighting Capability                           |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0205620N |                                   |                                                                                                    |                                   |                                   |  |
| <b>Financial Plan</b>                                                                                                               | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                                     | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                                                                     | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                          | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                                  | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                                                  |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   |                                                                                                    |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE                                               |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   |                                                                                                    |                                   |                                   |  |
| B Kits                                                                                                                              |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   |                                                                                                    |                                   |                                   |  |
| Recurring                                                                                                                           |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   |                                                                                                    |                                   |                                   |  |
| 1.1.1) AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE - NonOrganic <sup>(13)</sup>                                            | 2 / 18.905                        | 1 / 9.515                         | - / -                             | 2 / 19.231                                                                 | - / -                             | 2 / 19.231                        | 2 / 20.452                        | 1 / 10.339                             | 2 / 21.052                        | - / -                                                                                              | - / -                             | 10 / 99.494                       |  |
| <b>Subtotal: Recurring</b>                                                                                                          | - / 18.905                        | - / 9.515                         | - / -                             | - / 19.231                                                                 | - / -                             | - / 19.231                        | - / 20.452                        | - / 10.339                             | - / 21.052                        | - / -                                                                                              | - / 0.000                         | - / 99.494                        |  |
| <b>Subtotal: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE</b>                                                               | 2 / 18.905                        | 1 / 9.515                         | - / -                             | 2 / 19.231                                                                 | - / -                             | 2 / 19.231                        | 2 / 20.452                        | 1 / 10.339                             | 2 / 21.052                        | - / -                                                                                              | - / -                             | 10 / 99.494                       |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                                                | - / 18.905                        | - / 9.515                         | - / -                             | - / 19.231                                                                 | - / -                             | - / 19.231                        | - / 20.452                        | - / 10.339                             | - / 21.052                        | - / -                                                                                              | - / 0.000                         | - / 99.494                        |  |
| <b>Installation</b>                                                                                                                 |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   |                                                                                                    |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE                                               | - / 1.369                         | - / 0.000                         | - / 10.904                        | - / 4.554                                                                  | - / 0.000                         | - / 4.554                         | - / 2.326                         | - / 11.806                             | - / 10.813                        | - / 7.344                                                                                          | - / 9.800                         | - / 58.916                        |  |
| <b>Subtotal: Installation</b>                                                                                                       | - / 1.369                         | - / -                             | - / 10.904                        | - / 4.554                                                                  | - / -                             | - / 4.554                         | - / 2.326                         | - / 11.806                             | - / 10.813                        | - / 7.344                                                                                          | - / 9.800                         | - / 58.916                        |  |
| <b>Total</b>                                                                                                                        |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                        |                                   |                                                                                                    |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                            | <b>20.274</b>                     | <b>9.515</b>                      | <b>10.904</b>                     | <b>23.785</b>                                                              | <b>0.000</b>                      | <b>23.785</b>                     | <b>22.778</b>                     | <b>22.145</b>                          | <b>31.865</b>                     | <b>7.344</b>                                                                                       | <b>9.800</b>                      | <b>158.410</b>                    |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                  |                                |                                |                                |                                                                            |                                |                                                      |                                | <b>Date:</b> February 2018                                                                         |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                             |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                |                                                      |                                | <b>Modification Number / Title:</b><br>2 / AN/SQQ-89A(V)15 - DDG51-78<br>(SELECT) FLT I/II UPGRADE |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                     |                                |                                |                                |                                                                            |                                | <b>MDAP/MAIS Code:</b>                               |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE                                       |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                                             |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                    |                                |                                |                                |                                |
| Manufacturer Name: Lockheed Martin                                                                                          |                                |                                |                                |                                                                            |                                | Manufacturer Location: Manassas, VA                  |                                |                                                                                                    |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                                      |                                |                                |                                |                                                                            |                                | Production Leadtime (in Months): 18                  |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                                       | <b>FY 2023</b>                 |                                                                                                    |                                |                                |                                |                                |
| Contract Dates                                                                                                              | Mar 2017                       |                                | Mar 2019                       | Mar 2020                                                                   |                                |                                                      |                                |                                                                                                    |                                |                                |                                |                                |
| Delivery Dates                                                                                                              | Sep 2018                       |                                | Sep 2020                       | Sep 2021                                                                   |                                |                                                      |                                |                                                                                                    |                                |                                |                                |                                |
| Manufacturer Name: TBD (Competitive Procurement)                                                                            |                                |                                |                                |                                                                            |                                | Manufacturer Location: TBD (Competitive Procurement) |                                |                                                                                                    |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                                      |                                |                                |                                |                                                                            |                                | Production Leadtime (in Months): 18                  |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                                       | <b>FY 2023</b>                 |                                                                                                    |                                |                                |                                |                                |
| Contract Dates                                                                                                              |                                |                                |                                |                                                                            | Mar 2021                       | Mar 2022                                             |                                |                                                                                                    |                                |                                |                                |                                |
| Delivery Dates                                                                                                              |                                |                                |                                |                                                                            | Sep 2022                       | Sep 2023                                             |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                                             |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Method of Implementation:</b> AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                    |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                                    | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>                                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                                     | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                                 | 0 / 1.369                      | - / -                          | 2 / 9.782                      | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                              | - / -                          | - / -                          | 0 / 0.000                      | 2 / 11.151                     |
| FY 2017                                                                                                                     | - / -                          | - / -                          | 0 / 1.122                      | 1 / 4.554                                                                  | 0 / 0.000                      | 1 / 4.554                                            | - / -                          | - / -                                                                                              | - / -                          | - / -                          | 0 / 0.000                      | 1 / 5.676                      |
| FY 2018                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | 0 / 2.326                      | 2 / 9.438                                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 11.764                     |
| FY 2020                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | 0 / 2.368                                                                                          | 2 / 9.608                      | - / -                          | 0 / 0.000                      | 2 / 11.976                     |
| FY 2021                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                              | 0 / 1.205                      | 1 / 4.890                      | 0 / 0.000                      | 1 / 6.095                      |
| FY 2022                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                              | - / -                          | 0 / 2.454                      | 2 / 9.800                      | 2 / 12.254                     |
| FY 2023                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                                                                 | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                                                       | 0 / 1.369                      | - / -                          | 2 / 10.904                     | 1 / 4.554                                                                  | 0 / 0.000                      | 1 / 4.554                                            | 0 / 2.326                      | 2 / 11.806                                                                                         | 2 / 10.813                     | 1 / 7.344                      | 2 / 9.800                      | 10 / 58.916                    |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                  |                                                                            | <b>Date:</b> February 2018                                                                      |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                             | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys | <b>Modification Number / Title:</b><br>2 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                     |                                                                            | <b>MDAP/MAIS Code:</b>                                                                          |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE                                       |                                                                            |                                                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Information</b>                                                                                             |                                                                            |                                                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Method of Implementation:</b> AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE |                                                                            |                                                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Schedule</b>                                                                                                |                                                                            |                                                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|                                                                                                                             | PYS                                                                        | FY 2017                                                                                         |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                                             |                                                                            | Q1                                                                                              | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                                          | -                                                                          | -                                                                                               | -  | -  | -  | -       | -  | 1  | 1  | -       | -  | 1  | -  | -       | -  | -  | -  | -       | 1  | 1  | -  | -       | 1  | 1  | -  | -       | 1  | -  | -  | 2  | 10  |
| Out                                                                                                                         | -                                                                          | -                                                                                               | -  | -  | -  | -       | -  | -  | 1  | 1       | -  | -  | 1  | -       | -  | -  | -  | -       | -  | 1  | 1  | -       | -  | 1  | 1  | -       | -  | 1  | -  | 2  | 10  |

**Footnotes:**

<sup>(13)</sup> AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every three years in a ship's schedule. FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016. FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.



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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-----------------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                          |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                     |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                      | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                   | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 23.659             | 13.255         | 16.205         | 16.211                                                                     | 0.000              | 16.211               | 17.247                 | 17.475         | 17.821         | 18.188                                                                                              | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                   | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 23.659             | 13.255         | 16.205         | 16.211                                                                     | 0.000              | 16.211               | 17.247                 | 17.475         | 17.821         | 18.188                                                                                              | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                   | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>23.659</b>      | <b>13.255</b>  | <b>16.205</b>  | <b>16.211</b>                                                              | <b>0.000</b>       | <b>16.211</b>        | <b>17.247</b>          | <b>17.475</b>  | <b>17.821</b>  | <b>18.188</b>                                                                                       | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                     |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                   | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                   | -                  | -                 |
| <p><b>Description:</b><br/> [AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE] See the following:</p> <p>AN/SQQ-89A(V)15 YEAR TO YEAR FUNDING PROFILE FROM PROCUREMENT TO INSTALL:<br/> 1st Year - Procurement of Equipment.<br/> 2nd Year - Ordering of incidental installation material and perform mandatory planning yard design tasks and ship checks. This is shown as a quantity of "0" with requested funds in the year before the installation of equipment.<br/> 3rd Year - Installation of Equipment.</p> <p>AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE - COST CODE DB400 PROCUREMENT: Procurement of a subset of AN/SQQ-89A(V)15 equipment, specifically the Multi-Function Towed Array (MFTA) and Handling &amp; Stowage Group (H&amp;SG), for subsequent installation on all DDG113 and follow ships during their Post Delivery Availability (PDA) or Post Shakedown Availability (PSA) periods, to upgrade the ASW sonar suite from an AN/SQQ-89(V)15 configuration to the AN/SQQ-89A(V)15 configuration.</p> <p>AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE - COST CODE DB6IN INSTALLATION: Physical installation of the H&amp;SG and MFTA on DDG113 and follow ships during their PDA or PSA period which includes the installation of an egress, under-deck stiffeners, cables, bulkheads, opening and closing of the transom, the winch, levelwind, fairlead and control station, decking, painting, and final system testing, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p> <p>FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016.</p> <p>FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.</p> |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                     |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                           |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                          |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                      |                                           |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                              |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                                     |                                           |                                           |  |
| <b>Models of Systems Affected:</b> Upgrade of in-line AN/SQQ-89(V)15 on all DDG113 and follow ships to AN/SQQ-89A(V)15 configuration |                                           |                                           |                                           |                                           | <b>Modification Type:</b> Warfighting Capability                           |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b> 0205620N    |                                                                                                     |                                           |                                           |  |
| <b>Financial Plan</b>                                                                                                                | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                   | <b>FY 2019<br/>OCO</b>                                                     | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                                      | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                                                                      | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                           | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                                                   |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                                                                                     |                                           |                                           |  |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE                                            |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                                                                                     |                                           |                                           |  |
| B Kits                                                                                                                               |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                                                                                     |                                           |                                           |  |
| Recurring                                                                                                                            |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                                                                                     |                                           |                                           |  |
| 1.1.1) AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE - NonOrganic <sup>(14)</sup>                                         | 4 / 21.462                                | 2 / 11.014                                | 2 / 11.157                                | 2 / 11.074                                | - / -                                                                      | 2 / 11.074                                | 2 / 12.017                                | 2 / 12.151                                | 2 / 12.393                                | 2 / 12.662                                                                                          | Continuing                                | Continuing                                |  |
| <i>Subtotal: Recurring</i>                                                                                                           | - / 21.462                                | - / 11.014                                | - / 11.157                                | - / 11.074                                | - / -                                                                      | - / 11.074                                | - / 12.017                                | - / 12.151                                | - / 12.393                                | - / 12.662                                                                                          | Continuing                                | Continuing                                |  |
| <i>Subtotal: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE</i>                                                            | 4 / 21.462                                | 2 / 11.014                                | 2 / 11.157                                | 2 / 11.074                                | - / -                                                                      | 2 / 11.074                                | 2 / 12.017                                | 2 / 12.151                                | 2 / 12.393                                | 2 / 12.662                                                                                          | Continuing                                | Continuing                                |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                                                 | - / 21.462                                | - / 11.014                                | - / 11.157                                | - / 11.074                                | - / -                                                                      | - / 11.074                                | - / 12.017                                | - / 12.151                                | - / 12.393                                | - / 12.662                                                                                          | Continuing                                | Continuing                                |  |
| <b>Installation</b>                                                                                                                  |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                                                                                     |                                           |                                           |  |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE                                            | - / 2.197                                 | - / 2.241                                 | - / 5.048                                 | - / 5.137                                 | - / 0.000                                                                  | - / 5.137                                 | - / 5.230                                 | - / 5.324                                 | - / 5.428                                 | - / 5.526                                                                                           | - / 10.889                                | - / 47.020                                |  |
| <i>Subtotal: Installation</i>                                                                                                        | - / 2.197                                 | - / 2.241                                 | - / 5.048                                 | - / 5.137                                 | - / -                                                                      | - / 5.137                                 | - / 5.230                                 | - / 5.324                                 | - / 5.428                                 | - / 5.526                                                                                           | - / 10.889                                | - / 47.020                                |  |
| <b>Total</b>                                                                                                                         |                                           |                                           |                                           |                                           |                                                                            |                                           |                                           |                                           |                                           |                                                                                                     |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                             | <b>23.659</b>                             | <b>13.255</b>                             | <b>16.205</b>                             | <b>16.211</b>                             | <b>0.000</b>                                                               | <b>16.211</b>                             | <b>17.247</b>                             | <b>17.475</b>                             | <b>17.821</b>                             | <b>18.188</b>                                                                                       | <b>Continuing</b>                         | <b>Continuing</b>                         |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                      |                                |                                |                                |                                                                            |                                |                                                      |                                | <b>Date:</b> February 2018                                                                          |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                |                                                      |                                | <b>Modification Number / Title:</b><br>3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                         |                                |                                |                                |                                                                            |                                | <b>MDAP/MAIS Code:</b>                               |                                |                                                                                                     |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE                                       |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                     |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                                                 |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                     |                                |                                |                                |                                |
| Manufacturer Name: Lockheed Martin                                                                                              |                                |                                |                                |                                                                            |                                | Manufacturer Location: Syracuse, NY                  |                                |                                                                                                     |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                                          |                                |                                |                                |                                                                            |                                | Production Leadtime (in Months): 18                  |                                |                                                                                                     |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                    | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                                       | <b>FY 2023</b>                 |                                                                                                     |                                |                                |                                |                                |
| Contract Dates                                                                                                                  | Mar 2017                       | Mar 2018                       | Mar 2019                       |                                                                            |                                |                                                      |                                |                                                                                                     |                                |                                |                                |                                |
| Delivery Dates                                                                                                                  | Sep 2018                       | Sep 2019                       | Sep 2020                       |                                                                            |                                |                                                      |                                |                                                                                                     |                                |                                |                                |                                |
| Manufacturer Name: TBD (Competitive Procurement)                                                                                |                                |                                |                                |                                                                            |                                | Manufacturer Location: TBD (Competitive Procurement) |                                |                                                                                                     |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                                          |                                |                                |                                |                                                                            |                                | Production Leadtime (in Months): 18                  |                                |                                                                                                     |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                    | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                                       | <b>FY 2023</b>                 |                                                                                                     |                                |                                |                                |                                |
| Contract Dates                                                                                                                  |                                |                                |                                | Mar 2020                                                                   | Mar 2021                       | Mar 2022                                             | Mar 2023                       |                                                                                                     |                                |                                |                                |                                |
| Delivery Dates                                                                                                                  |                                |                                |                                | Sep 2021                                                                   | Sep 2022                       | Sep 2023                                             | Sep 2024                       |                                                                                                     |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                                                 |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                     |                                |                                |                                |                                |
| <b>Method of Implementation:</b> AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE |                                |                                |                                |                                                                            |                                |                                                      |                                |                                                                                                     |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                                        | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>                                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                                      | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                                     | 1 / 2.197                      | 1 / 2.241                      | 2 / 4.610                      | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                               | - / -                          | - / -                          | 0 / 0.000                      | 4 / 9.048                      |
| FY 2017                                                                                                                         | - / -                          | - / -                          | 0 / 0.438                      | 2 / 4.692                                                                  | 0 / 0.000                      | 2 / 4.692                                            | - / -                          | - / -                                                                                               | - / -                          | - / -                          | 0 / 0.000                      | 2 / 5.130                      |
| FY 2018                                                                                                                         | - / -                          | - / -                          | - / -                          | 0 / 0.445                                                                  | 0 / 0.000                      | 0 / 0.445                                            | 2 / 4.777                      | - / -                                                                                               | - / -                          | - / -                          | 0 / 0.000                      | 2 / 5.222                      |
| FY 2019                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | 0 / 0.453                      | 2 / 4.863                                                                                           | - / -                          | - / -                          | 0 / 0.000                      | 2 / 5.316                      |
| FY 2020                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | 0 / 0.461                                                                                           | 2 / 4.958                      | - / -                          | 0 / 0.000                      | 2 / 5.419                      |
| FY 2021                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                               | 0 / 0.470                      | 2 / 5.048                      | 0 / 0.000                      | 2 / 5.518                      |
| FY 2022                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                               | - / -                          | 0 / 0.478                      | 2 / 5.149                      | 2 / 5.627                      |
| FY 2023                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                               | - / -                          | - / -                          | 2 / 5.740                      | 2 / 5.740                      |
| To Complete                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                                                | - / -                          | - / -                                                                                               | - / -                          | - / -                          | 0 / 0.000                      | - / -                          |
| Total                                                                                                                           | 1 / 2.197                      | 1 / 2.241                      | 2 / 5.048                      | 2 / 5.137                                                                  | 0 / 0.000                      | 2 / 5.137                                            | 2 / 5.230                      | 2 / 5.324                                                                                           | 2 / 5.428                      | 2 / 5.526                      | 4 / 10.889                     | 18 / 47.020                    |

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|--------------------------------------------------------------------------------------------------------------------------|-----|---------|----|----|----|---------|----|----|----|---------------------------------------------------------------------|----|----|----|---------|-----------------|----|----|---------|---------------------|----------------------------------------------------------------------------------------------|----|---------|----|----|----|---------|----|----|----|----|-----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                      |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         | Date: February 2018 |                                                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2                                                 |     |         |    |    |    |         |    |    |    | P-1 Line Item Number / Title:<br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |    |    |    |         |                 |    |    |         |                     | Modification Number / Title:<br>3 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE |    |         |    |    |    |         |    |    |    |    |     |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                         |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         | MDAP/MAIS Code: |    |    |         |                     |                                                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE                                       |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Installation Information                                                                                                 |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Method of Implementation: AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Installation Schedule                                                                                                    |     |         |    |    |    |         |    |    |    |                                                                     |    |    |    |         |                 |    |    |         |                     |                                                                                              |    |         |    |    |    |         |    |    |    |    |     |
|                                                                                                                          | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019                                                             |    |    |    | FY 2020 |                 |    |    | FY 2021 |                     |                                                                                              |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                                          |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1                                                                  | Q2 | Q3 | Q4 | Q1      | Q2              | Q3 | Q4 | Q1      | Q2                  | Q3                                                                                           | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                                       | 1   | -       | 1  | -  | -  | -       | 2  | -  | -  | -                                                                   | 1  | 1  | -  | -       | 1               | 1  | -  | -       | 1                   | 1                                                                                            | -  | -       | 1  | 1  | -  | -       | 1  | 1  | -  | 4  | 18  |
| Out                                                                                                                      | 1   | -       | 1  | -  | -  | -       | 2  | -  | -  | -                                                                   | 1  | 1  | -  | -       | 1               | 1  | -  | -       | 1                   | 1                                                                                            | -  | -       | 1  | 1  | -  | -       | 1  | 1  | -  | 4  | 18  |

**Footnotes:**

<sup>(14)</sup> FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016. FY 2020 and follow increased AN/SQQ-89A(V)15 shipset procurement unit costs reflect the transition from the MFTA TB-37 array to the MFTA TB-37X array, which is required to address and resolve deficiencies in the current MFTA TB-37 array's reliability (by changing from a Towed Array Integrated Product Team (TAIPT) telemetry to a more reliable telemetry), as well as address and resolve parts obsolescence issues.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                           |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                            | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 40.542             | 21.235         | 23.398         | 38.083                                                                     | 0.000              | 38.083               | 49.261                 | 40.127         | 51.213         | 59.895                                                                                    | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 40.542             | 21.235         | 23.398         | 38.083                                                                     | 0.000              | 38.083               | 49.261                 | 40.127         | 51.213         | 59.895                                                                                    | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>40.542</b>      | <b>21.235</b>  | <b>23.398</b>  | <b>38.083</b>                                                              | <b>0.000</b>       | <b>38.083</b>        | <b>49.261</b>          | <b>40.127</b>  | <b>51.213</b>  | <b>59.895</b>                                                                             | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                           |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                 |
| <p><b>Description:</b><br/> [AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH] See the following:</p> <p>AN/SQQ-89A(V)15 YEAR TO YEAR FUNDING PROFILE FROM PROCUREMENT TO INSTALL:<br/> 1st Year - Procurement of Equipment.<br/> 2nd Year - Ordering of incidental installation material and perform mandatory planning yard design tasks and ship checks. This is shown as a quantity of "0" with requested funds in the year before the installation of equipment.<br/> 3rd Year - Installation of Equipment.</p> <p>AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH - COST CODE DB400 PROCUREMENT: Leveraging the submarine community's Acoustic Rapid Commercial-off-the-Shelf (COTS) Insertion (ARCI) process, the AN/SQQ-89A(V)15 Tech Refresh program procures upgraded software/hardware technology for all CG47/DDG51 Class surface combatant platforms with a previously fielded AN/SQQ-89A(V)15. This process has proven to manage obsolescence, take advantage of commercial development efforts, and continue to pace the threat to ensure systems remain effective well into the 21st century. Studies of the submarine and surface ASW technology show that system upgrades are most critical 6-9 years after initial installation of the AN/SQQ-89A(V)15, as failure rates within this period begin to rise. Establishing a stable technology refresh program will ensure the Fleet maintains critical Undersea Warfare capability (threat-pacing improvements) and productivity (Increased Operational Availability (Ao)) while reducing the Total Ownership Cost (TOC) to the Navy.</p> <p>AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH - COST CODE DB6IN INSTALLATION: Funding is for the physical installation of the AN/SQQ-89A(V)15 Technology Refresh upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p> <p>FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016.</p> |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                           |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                     |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        | <b>Date:</b> February 2018                                                                |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                       |                                       |                                       |                                        | <b>Modification Number / Title:</b><br>4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                        |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                        |                                                                                           |                                       |                                       |  |
| <b>Models of Systems Affected:</b> Technology refresh of previously fielded AN/SQQ-89A(V)15 USW Combat Systems |                                       |                                       |                                       |                                       | <b>Modification Type:</b> Warfighting Capability                           |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0205620N |                                                                                           |                                       |                                       |  |
| <b>Financial Plan</b>                                                                                          | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                         | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                         | <b>FY 2023</b>                                                                            | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                                                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>  | <i>Qty (Each) / Total Cost (\$ M)</i>                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                             |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH                                |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |
| B Kits                                                                                                         |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |
| Recurring                                                                                                      |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |
| 1.1.1) AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH - NonOrganic <sup>(15)</sup>                             | 8 / 34.896                            | 3 / 13.628                            | 3 / 13.874                            | 6 / 28.388                            | - / -                                                                      | 6 / 28.388                            | 8 / 38.711                            | 4 / 19.571                            | 5 / 24.905                             | 9 / 45.803                                                                                | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                                                     | - / 34.896                            | - / 13.628                            | - / 13.874                            | - / 28.388                            | - / -                                                                      | - / 28.388                            | - / 38.711                            | - / 19.571                            | - / 24.905                             | - / 45.803                                                                                | Continuing                            | Continuing                            |  |
| <i>Subtotal: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH</i>                                                | 8 / 34.896                            | 3 / 13.628                            | 3 / 13.874                            | 6 / 28.388                            | - / -                                                                      | 6 / 28.388                            | 8 / 38.711                            | 4 / 19.571                            | 5 / 24.905                             | 9 / 45.803                                                                                | Continuing                            | Continuing                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                           | - / 34.896                            | - / 13.628                            | - / 13.874                            | - / 28.388                            | - / -                                                                      | - / 28.388                            | - / 38.711                            | - / 19.571                            | - / 24.905                             | - / 45.803                                                                                | Continuing                            | Continuing                            |  |
| <b>Installation</b>                                                                                            |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH                                | - / 5.646                             | - / 7.607                             | - / 9.524                             | - / 9.695                             | - / 0.000                                                                  | - / 9.695                             | - / 10.550                            | - / 20.556                            | - / 26.308                             | - / 14.092                                                                                | - / 49.617                            | - / 153.595                           |  |
| <i>Subtotal: Installation</i>                                                                                  | - / 5.646                             | - / 7.607                             | - / 9.524                             | - / 9.695                             | - / -                                                                      | - / 9.695                             | - / 10.550                            | - / 20.556                            | - / 26.308                             | - / 14.092                                                                                | - / 49.617                            | - / 153.595                           |  |
| <b>Total</b>                                                                                                   |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                       | <b>40.542</b>                         | <b>21.235</b>                         | <b>23.398</b>                         | <b>38.083</b>                         | <b>0.000</b>                                                               | <b>38.083</b>                         | <b>49.261</b>                         | <b>40.127</b>                         | <b>51.213</b>                          | <b>59.895</b>                                                                             | <b>Continuing</b>                     | <b>Continuing</b>                     |  |
|                                                                                                                |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                        |                                                                                           |                                       |                                       |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                               |                                       |                                       |                                       |                                                                            |                                       |                                                      |                                       | <b>Date:</b> February 2018                                                                |                                       |                                       |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                          |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys |                                       |                                                      |                                       | <b>Modification Number / Title:</b><br>4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH |                                       |                                       |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                  |                                       |                                       |                                       |                                                                            |                                       | <b>MDAP/MAIS Code:</b>                               |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH                          |                                       |                                       |                                       |                                                                            |                                       |                                                      |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Manufacturer Information</b>                                                                          |                                       |                                       |                                       |                                                                            |                                       |                                                      |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| Manufacturer Name: Lockheed Martin                                                                       |                                       |                                       |                                       |                                                                            |                                       | Manufacturer Location: Manassas, VA                  |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 3                                                           |                                       |                                       |                                       |                                                                            |                                       | Production Leadtime <i>(in Months)</i> : 17          |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                             | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                                             | <b>FY 2021</b>                        | <b>FY 2022</b>                                       | <b>FY 2023</b>                        |                                                                                           |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                           | Mar 2017                              | Mar 2018                              | Mar 2019                              | Mar 2020                                                                   |                                       |                                                      |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                           | Aug 2018                              | Aug 2019                              | Aug 2020                              | Aug 2021                                                                   |                                       |                                                      |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| Manufacturer Name: TBD (Competitive Procurement)                                                         |                                       |                                       |                                       |                                                                            |                                       | Manufacturer Location: TBD (Competitive Procurement) |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 3                                                           |                                       |                                       |                                       |                                                                            |                                       | Production Leadtime <i>(in Months)</i> : 17          |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                             | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                                             | <b>FY 2021</b>                        | <b>FY 2022</b>                                       | <b>FY 2023</b>                        |                                                                                           |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                           |                                       |                                       |                                       |                                                                            | Mar 2021                              | Mar 2022                                             | Mar 2023                              |                                                                                           |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                           |                                       |                                       |                                       |                                                                            | Aug 2022                              | Aug 2023                                             | Aug 2024                              |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Installation Information</b>                                                                          |                                       |                                       |                                       |                                                                            |                                       |                                                      |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Method of Implementation:</b> AIT:: Installation Name: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH |                                       |                                       |                                       |                                                                            |                                       |                                                      |                                       |                                                                                           |                                       |                                       |                                       |                                       |
| <b>Installation Cost</b>                                                                                 | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                                 | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                            | <b>FY 2022</b>                        | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| Prior Years                                                                                              | 2 / 5.646                             | 3 / 7.607                             | 3 / 8.869                             | - / -                                                                      | - / -                                 | - / -                                                | - / -                                 | - / -                                                                                     | - / -                                 | - / -                                 | 0 / 0.000                             | 8 / 22.122                            |
| FY 2017                                                                                                  | - / -                                 | - / -                                 | 0 / 0.655                             | 3 / 9.028                                                                  | 0 / 0.000                             | 3 / 9.028                                            | - / -                                 | - / -                                                                                     | - / -                                 | - / -                                 | 0 / 0.000                             | 3 / 9.683                             |
| FY 2018                                                                                                  | - / -                                 | - / -                                 | - / -                                 | 0 / 0.667                                                                  | 0 / 0.000                             | 0 / 0.667                                            | 3 / 9.192                             | - / -                                                                                     | - / -                                 | - / -                                 | 0 / 0.000                             | 3 / 9.859                             |
| FY 2019                                                                                                  | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                                | 0 / 1.358                             | 6 / 18.713                                                                                | - / -                                 | - / -                                 | 0 / 0.000                             | 6 / 20.071                            |
| FY 2020                                                                                                  | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                                | - / -                                 | 0 / 1.843                                                                                 | 8 / 25.400                            | - / -                                 | 0 / 0.000                             | 8 / 27.243                            |
| FY 2021                                                                                                  | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                                | - / -                                 | - / -                                                                                     | 0 / 0.908                             | 4 / 12.928                            | 0 / 0.000                             | 4 / 13.836                            |
| FY 2022                                                                                                  | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                                | - / -                                 | - / -                                                                                     | - / -                                 | 0 / 1.164                             | 5 / 16.193                            | 5 / 17.357                            |
| FY 2023                                                                                                  | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                                | - / -                                 | - / -                                                                                     | - / -                                 | - / -                                 | 9 / 33.424                            | 9 / 33.424                            |
| To Complete                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                                | - / -                                 | - / -                                                                                     | - / -                                 | - / -                                 | 0 / 0.000                             | - / -                                 |
| Total                                                                                                    | 2 / 5.646                             | 3 / 7.607                             | 3 / 9.524                             | 3 / 9.695                                                                  | 0 / 0.000                             | 3 / 9.695                                            | 3 / 10.550                            | 6 / 20.556                                                                                | 8 / 26.308                            | 4 / 14.092                            | 14 / 49.617                           | 46 / 153.595                          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                               |                                                                            | <b>Date:</b> February 2018                                                                   |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                          | <b>P-1 Line Item Number / Title:</b><br>2136 / AN/SQQ-89 Surf ASW Cmbt Sys | <b>Modification Number / Title:</b><br>4 / AN/SQQ-89A(V)15 - TECHNOLOGY<br>INSERTION/REFRESH |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                  |                                                                            | <b>MDAP/MAIS Code:</b>                                                                       |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Modification Item 1 of 1:</b> AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH                          |                                                                            |                                                                                              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Information</b>                                                                          |                                                                            |                                                                                              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Method of Implementation:</b> AIT:: Installation Name: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH |                                                                            |                                                                                              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Schedule</b>                                                                             |                                                                            |                                                                                              |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|                                                                                                          | PYS                                                                        | FY 2017                                                                                      |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                          |                                                                            | Q1                                                                                           | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                       | 2                                                                          | -                                                                                            | -  | 2  | 1  | -       | 2  | 1  | -  | -       | 1  | 1  | 1  | -       | 1  | 2  | -  | 1       | 2  | 2  | 1  | 1       | 2  | 3  | 2  | -       | 2  | 2  | -  | 14 | 46  |
| Out                                                                                                      | 2                                                                          | -                                                                                            | -  | 2  | 1  | -       | 2  | 1  | -  | -       | 1  | 1  | 1  | -       | 1  | 2  | -  | 1       | 2  | 2  | 1  | 1       | 2  | 3  | 2  | -       | 2  | 2  | -  | 14 | 46  |

**Footnotes:**

<sup>(15)</sup> FY 2018 and follow increased AN/SQQ-89A(V)15 installation unit costs reflect projections for when the shipyards transition from Multi-Ship/Multi-Option (MS/MO) to a Firm-Fixed Price (FFP) contracting strategy, as directed by the Fleet Forces Command Naval Message, dated March FY 2016.



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                                               |                     |                    |                      |                                                                       |                |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      | <b>Other Related Program Elements:</b> N/A                            |                |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                                               |                     |                    |                      |                                                                       |                |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                        | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                     | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.000              | 288.265        | 331.053                                       | 318.189             | 0.000              | 318.189              | 378.968                                                               | 441.021        | 427.711        | 499.564                    | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                     | -              | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.000              | 288.265        | 331.053                                       | 318.189             | 0.000              | 318.189              | 378.968                                                               | 441.021        | 427.711        | 499.564                    | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                     | -              | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>0.000</b>       | <b>288.265</b> | <b>331.053</b>                                | <b>318.189</b>      | <b>0.000</b>       | <b>318.189</b>       | <b>378.968</b>                                                        | <b>441.021</b> | <b>427.711</b> | <b>499.564</b>             | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                                               |                     |                    |                      |                                                                       |                |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | 8.178          | 22.381                                        | 20.540              | -                  | 20.540               | 22.317                                                                | 22.137         | 21.512         | 20.500                     | Continuing         | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                     | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                     | -              | -              | -                          | -                  | -                 |
| <p><b>Description:</b></p> <p>MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program procures submarine systems and equipment for installation on all classes of submarines to maintain clear acoustical, tactical, and operational superiority over submarine and surface combatants in all scenarios through detection, classification, localization, and contact following. All future acoustic upgrades of Acoustic Rapid COTS Insertion (A-RCI) equipment are incorporated into this budget item. Future procurements, detailed below, are focused on supporting Littoral Warfare, Regional Sea Denial, Strike Group Support, Diesel Submarine Detection, Surveillance, and Peacetime Engagement. A-RCI is a multi-phased, evolutionary development effort geared toward addressing acoustic superiority issues through the rapid introduction of interim products applicable to SSN 688, 688I Flight, SSN21, SSGN, VA Class, and SSBN 726 Class Submarines. A-RCI Phase II provided towed array processing improvements; A-RCI Phase III provides spherical array processing improvements, and A-RCI Phase IV provides AN/BSY-1 High Frequency Upgrades for SSN 688I, SSGN, and Seawolf Classes. As part of Navy's plan to maintain acoustic superiority for in-service submarines, reduce obsolescence, and provide increased capability, the A-RCI program will modernize and sustain approximately 8-12 SSNs and 2-3 SSBNs per year through executing bi-annual software Advanced Processing Builds (APBs) and bi-annual hardware Technical Insertions (TIs). A-RCI annual funding varies based on the number of modernizations funded as well as the particular class of submarine being modernized.</p> <p>Towed system procurements of TB-29X and TB-34X provide reliability improvements to maintain acoustic superiority, increase the service life, reduce failures, and maintain the inventory of arrays available for fleet use. Towed Array Refurbishment &amp; Reliability Upgrades sustain current in-service TB-16/34 fat line and TB-23/29A thin line towed arrays. Towed System procurements provide upgrade/support for OK-276, OK-634, OK-542 and OA-9070 Series Towed Array Handlers installed on SSN688, SSN 688I, SSN21, SSGN, VA Class, and SSBN 726 Class Submarines.</p> <p>Procurement of Low Cost Conformal Array (LCCA) provides enhanced situational awareness and collision avoidance capability in high contact density environments experienced in the littorals. Procurement of VA Unique Sensors sustains unique hull sensor systems for the VA platforms under the Critical Transducer Program as VA Class submarines transition into fleet service.</p> <p>Procurement of the OHIO Class Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for the OHIO class submarines. SSBN systems will be approximately half the width of their SSN counterparts. This variance reflects the difference in mission, expected environment, and requirements.</p> <p>Procurement of the VIRGINIA Class Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for the VIRGINIA class submarines. SSN systems will be approximately twice the width of their SSBN counterparts. This variance reflects the difference in mission, expected environment, and requirements.</p> |                    |                |                                               |                     |                    |                      |                                                                       |                |                |                            |                    |                   |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        | Date: February 2018                                            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        | P-1 Line Item Number / Title:<br>2150 / SSN Acoustic Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                                                                |
| <p>Procurement of the High Frequency Sail Array (HFSA) provides high frequency active and passive capability supporting ASW and ASUW for SSNs, and contact avoidance for SSNs and SSBNs. This capability enables close in situational awareness with high bearing accuracy. HFSA improves situational awareness and tactical control in high density contact areas, of particular importance for Pacific Fleet SSBNs based at Bangor WA inside the Puget Sound with three major commercial shipping ports.</p> <p>Procurement of hydrophones, transducers, cables, associated Out-Board Electronics bottles (OBE), and acoustic windows for In-Service Undersea Warfare Sonars on all classes of submarines are required to support units in the fleet on a replacement basis, at regularly scheduled ship overhauls, and at interim availabilities when units are defective, and for upgrades.</p> <p>Installation funds are for actual hardware installations during shipyard and pier-side availabilities. Procurements support a 12-24 month lead time for installations.</p> <p>[P40A / SA102 TOWED SYSTEMS]: Procures TB-34X Fatline and TB-29X Thinline Arrays to provide increase acoustic capability and reliability to the fleet. The program supports N8's response to the Fleet Forces Command's Urgent Operational Needs Statement message (dated 15 June 2009) which requests that a reliable Thinline Towed Array is critically needed to support submarine operations in the Western Pacific Area of Operations, refurbishment/upgrades reliability improvements to TB-16 series, TB-23, TB-29A to maintain in-service Towed Array inventory and increased array availability. Reliability improvements include new telemetry, hose material, improved internal connectors, hydrophones, tow cables, Vibration Isolation Modules (VIMS), and Heading Sensors.</p> <p>[P40A / SA105 SONAR SUPPORT EQUIPMENT]: Funds provided to procure BQN-17(A) and associated equipment.</p> <p>[P40A / SA106 HULL SENSORS]: Procurement of Low Cost Conformal Array (LCCA) provides enhanced situational awareness and collision avoidance capability, and VA Unique Sensors required to sustain unique hull sensor systems for the VA platforms under the Critical Transducer Program.</p> <p>[P40A / SA201 BLOCK CHANGES]: Minor Engineering Change Proposals (ECP's) and hardware changes affecting all classes of submarines are procured through this line. Funding will be used to support non-recurring first article test efforts associated with the changing COTS environment as well as Reliability, Maintainability, and Availability modifications requested by the Fleet. This line also supports the procurement of hardware necessary to implement the ECP's into the System or end item being procured.</p> <p>[P40A / SA202 PRODUCTION/ENGINEERING SUPPORT]: Funding supports the procurement of Acoustics Upgrades equipment, Towed Systems hardware, and Large Vertical Array equipment.</p> <p>[P40A / SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT]: Funding procures various towed array test equipment simulators and handling system/stowage tube inspection test equipment.</p> <p>[P40A / SA302 OP TRAINER UPGRADES]: Funding procures hardware upgrades and production engineering for Acoustic Upgrades operational trainer sites.</p> <p>[P40A / SA303 COTS SUPPORTABILITY UPGRADES]: Provides for Technology Refresh/Insertion for A-RCI kits. Tech Refresh provides for Software and Hardware updates to accommodate shifts in technology to the execution procurement years' "current state-of-the-practice" hardware. A-RCI has already undergone several technology insertion phases to accommodate integrating Advanced Processing Builds (APBs). Updates are necessary for signal and display processing hardware as APBs are introduced or as commercial support for the hardware is phased out. Tech Insertion procures the hardware necessary to upgrade and back fit the A-RCI kits. When A-RCI systems are being upgraded to subsequent phases of A-RCI, signal processing and display hardware will be procured from this line to accommodate common technology consistent with the APB being implemented in the year of introduction. In future years, requirements include additional equipment in technology insertion to prevent COTS hardware from becoming unsupportable/obsolete. Funding also supports the procurement and engineering for COTS Underwater Comms.</p> <p>[P40A / SA401 INITIAL TRAINING]: Provides for initial training curriculum development, training management materials, exercise control group development, pilot services, and services to the Fleet.</p> <p>[P40A / SA900 CONSULTING SERVICES]: Includes specification validation, contract deliverable monitoring, prime contractor monitoring for cost, schedule, and performance slips, ILS planning, and coordination of GFI. Additional support will include production planning, business case analysis, technical refresh and insertion planning and market analysis to review implementation strategies for procurement of current year "state of the practice" hardware in Acoustics programs. Consulting services will also provide production monitoring, installation planning and coordination support.</p> |                                        |                                                                |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               | <b>Date:</b> February 2018                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                               | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                            |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |                                                                       |
| <p>[P40A - 2 / PU100 SONAR SWITCHES AND TRANSDUCERS]: Included in this line are procurements of transducers, hydrophones, windows, cables, Out-Board Electronics (OBE), domes and their associated mounting hardware, and other support equipment and materials for the following Undersea Warfare Sonars: BSY-1, BSY-2, BQQ-5, BQQ-6, BQQ-10, BQG-5, BQS-15, BQS-14A, WQC-2, WLR-9/12, BQN-13, BQN-17, BQA-8, BQH-1 and BQS-25.</p> <p>[P40A - 2 / PU200 ENGINEERING CHANGES]: Funds ECPs, Value Engineering awards, and hardware changes affecting the SSN 688, 688I, SEAWOLF, SSBN 726 (TRIDENT), SSGN/SSBN, and VA Class submarines.</p> <p>[P40A - 2 / PU300 PROGRAM SUPPORT]: Supports the procurement of equipment of sonar hydrophones, transducers, cables, Out-Board Electronics (OBEs), and acoustic windows for In-Service Undersea Warfare Sonars.</p> <p>[P3A / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT]: Funding supports Technology Insertion, HF Active Components, and Transmit Group.</p> <p>[P3A - 2 / SA101 SSBN LEGACY INTERFACE HARDWARE]: The addition of SSBN Legacy Interface Hardware in FY 2019 supports emergent Engineering Change Proposals (ECPs) and hardware changes necessary to address significantly expanded power and infrastructure driven by required capability improvements. These funds support the conversion of the SSBN from a legacy Sonar system to the A-RCI model requiring upgrades to the power and infrastructure of the platform.</p> |                                               |                                                                       |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                   |  |                                        | Date: February 2018                                            |                                     |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars |  |                                        | P-1 Line Item Number / Title:<br>2150 / SSN Acoustic Equipment |                                     |  |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                            |  | Program Elements for Code B Items: N/A |                                                                | Other Related Program Elements: N/A |  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                |  |                                        |                                                                |                                     |  |

| Exhibits Schedule |                                                                                    |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|------------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                             | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | SSN Acoustics                                                                      |             |       |                | - / 0.000                                | - / 135.585                              | - / 160.550                              | - / 139.548                              | - / -                                    | - / 139.548                              |
| P-40a             | Sonar Switches and Transducers                                                     |             |       |                | - / 0.000                                | - / 11.592                               | - / 12.012                               | - / 12.562                               | - / -                                    | - / 12.562                               |
| P-3a              | 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT (SHIPALT)                    |             |       |                | - / 0.000                                | - / 2.182                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 2 / SA101 SSBN LEGACY INTERFACE HARDWARE (SHIPALT)                                 |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 11.652                               | - / 0.000                                | - / 11.652                               |
| P-3a              | 3 / SA106 LOW COST CONFORMAL ARRAY KITS (SHIPALT)                                  |             |       |                | - / 0.000                                | - / 12.974                               | - / 13.234                               | - / 13.498                               | - / 0.000                                | - / 13.498                               |
| P-3a              | 4 / SA106 HIGH FREQUENCY SAIL ARRAY (TBD)                                          |             |       |                | - / 0.000                                | - / 3.846                                | - / 6.117                                | - / 6.120                                | - / 0.000                                | - / 6.120                                |
| P-3a              | 5 / SA106 OHIO CLASS LARGE VERTICAL ARRAY (TBD)                                    |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 18.525                               | - / 0.000                                | - / 18.525                               |
| P-3a              | 6 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY (TBD)                                |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 7 / SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS) (SHIPALT)                     |             |       |                | - / 0.000                                | - / 13.274                               | - / 47.836                               | - / 62.603                               | - / 0.000                                | - / 62.603                               |
| P-3a              | 8 / SA303 SSGN TECHNOLOGY INSERTION KITS (SWFTS) (SHIPALT)                         |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 16.264                               | - / 0.000                                | - / 16.264                               |
| P-3a              | 9 / SA303 SSN 21 TECHNICAL INSERTION KITS (SWFTS) (SHIPALT)                        |             |       |                | - / 0.000                                | - / 12.037                               | - / 12.278                               | - / 3.415                                | - / 0.000                                | - / 3.415                                |
| P-3a              | 10 / SA303 VIRGINIA CLASS TECHNICAL INSERTION W/ CONVERSION KITS (SWFTS) (SHIPALT) |             |       |                | - / 0.000                                | - / 16.957                               | - / 3.348                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 11 / SA303 VIRGINIA CLASS TECHNICAL INSERTION KITS (SWFTS) (SHIPALT)               |             |       |                | - / 0.000                                | - / 55.810                               | - / 47.011                               | - / 10.245                               | - / 0.000                                | - / 10.245                               |
| P-3a              | 12 / SA303 SSBN TECHNICAL INSERTION CONVERSION (SWFTS) (SHIPALT)                   |             |       |                | - / 0.000                                | - / 24.008                               | - / 28.667                               | - / 23.757                               | - / 0.000                                | - / 23.757                               |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                              |             |       |                | - / 0.000                                | - / 288.265                              | - / 331.053                              | - / 318.189                              | - / 0.000                                | - / 318.189                              |

| Exhibits Schedule |                                                                 |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|-----------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                          | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | SSN Acoustics                                                   |             |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-40a             | Sonar Switches and Transducers                                  |             |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT (SHIPALT) |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 2.182                                |
| P-3a              | 2 / SA101 SSBN LEGACY INTERFACE HARDWARE (SHIPALT)              |             |       |                | - / 27.527                               | - / 20.902                               | - / 5.046                                | - / 0.000                                | - / 0.000                                | - / 65.127                               |
| P-3a              | 3 / SA106 LOW COST CONFORMAL ARRAY KITS (SHIPALT)               |             |       |                | - / 13.769                               | - / 14.044                               | - / 14.325                               | - / 14.612                               | Continuing                               | Continuing                               |
| P-3a              | 4 / SA106 HIGH FREQUENCY SAIL ARRAY (TBD)                       |             |       |                | - / 8.405                                | - / 6.492                                | - / 2.249                                | - / 0.000                                | - / 0.000                                | - / 33.229                               |
| P-3a              | 5 / SA106 OHIO CLASS LARGE VERTICAL ARRAY (TBD)                 |             |       |                | - / 18.896                               | - / 29.400                               | - / 29.989                               | - / 30.588                               | Continuing                               | Continuing                               |
| P-3a              | 6 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY (TBD)             |             |       |                | - / 43.405                               | - / 44.273                               | - / 65.077                               | - / 66.379                               | Continuing                               | Continuing                               |
| P-3a              | 7 / SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS) (SHIPALT)  |             |       |                | - / 55.560                               | - / 11.974                               | - / 34.519                               | - / 71.583                               | Continuing                               | Continuing                               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                |                                                                                    |             |                                               |                |                                          |                                                                       |                                          | <b>Date:</b> February 2018               |                                          |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------|-----------------------------------------------|----------------|------------------------------------------|-----------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars |                                                                                    |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                         |                                                                                    |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                            |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                             |                                                                                    |             |                                               |                |                                          |                                                                       |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                |                                                                                    |             |                                               |                | FY 2020                                  | FY 2021                                                               | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
| Exhibit Type                                                                                                                                                     | Title*                                                                             | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                              | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-3a                                                                                                                                                             | 8 / SA303 SSGN TECHNOLOGY INSERTION KITS (SWFTS) (SHIPALT)                         |             |                                               |                | - / 21.283                               | - / 4.788                                                             | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 42.335                               |
| P-3a                                                                                                                                                             | 9 / SA303 SSN 21 TECHNICAL INSERTION KITS (SWFTS) (SHIPALT)                        |             |                                               |                | - / 0.000                                | - / 0.000                                                             | - / 9.666                                | - / 13.555                               | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                             | 10 / SA303 VIRGINIA CLASS TECHNICAL INSERTION W/ CONVERSION KITS (SWFTS) (SHIPALT) |             |                                               |                | - / 0.000                                | - / 0.000                                                             | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 20.305                               |
| P-3a                                                                                                                                                             | 11 / SA303 VIRGINIA CLASS TECHNICAL INSERTION KITS (SWFTS) (SHIPALT)               |             |                                               |                | - / 27.872                               | - / 133.851                                                           | - / 85.775                               | - / 34.504                               | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                             | 12 / SA303 SSBN TECHNICAL INSERTION CONVERSION (SWFTS) (SHIPALT)                   |             |                                               |                | - / 25.478                               | - / 19.010                                                            | - / 27.803                               | - / 42.202                               | Continuing                               | Continuing                               |
| <b>P-40</b>                                                                                                                                                      | <b>Total Gross/Weapon System Cost</b>                                              |             |                                               |                | <b>- / 378.968</b>                       | <b>- / 441.021</b>                                                    | <b>- / 427.711</b>                       | <b>- / 499.564</b>                       | <b>Continuing</b>                        | <b>Continuing</b>                        |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**  
FY 2019 marks the first procurement of the LVA (SSBN variant). Additional funds are also allocated to support the procurement and installation A-RCI modernization equipment for SSBNs. The addition of SSBN Legacy Interface Hardware in FY 2019 supports emergent Engineering Change Proposals (ECPs) and hardware changes necessary to address significantly expanded power and infrastructure driven by required capability improvements. These funds support the conversion of the SSBN from a legacy Sonar system to the A-RCI model requiring upgrades to the power and infrastructure of the platform. FY 2019 also reflects one-time increases for block changes, production/ engineering support, install support, COTS Undersea Warfare (UWC) engineering support, and shipyard installation industrial support to address the expedited procurement and installation activities required to upgrade the power and infrastructure of SSBN modernization equipment. Funds also support the following procurement requirements to support submarine modernizations: Acoustic Rapid COTS Insertion (A-RCI) equipment (6 SSN 688I, 2 SSGN, and 2 SSBN); TB-34X Fatline (5) and TB-29X Thinline (4) towed arrays; towed array refurbishment & reliability upgrades to sustain current in-service TB-16/34 Fatline and TB-23/29A Thinline arrays; OK-276, OK-634, OK-542, and OA-9070 Series Towed Array Handlers; LCCA (2) for SSNs and HFSA (2) for SSBNs; and various hull sensors, transducers, and associated equipment for all classes of In-Service submarines.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          | Date: February 2018 |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|----------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|------------------------------------------|---------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2    |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2150 / SSN Acoustic Equipment |                   |                |            |                   |                |            | Aggregated Items Title:<br>SSN Acoustics |                     |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                |                   | FY 2018        |            |                   | FY 2019 Base   |            |                                          | FY 2019 OCO         |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                     | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                        | Unit Cost (\$)      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) SA102 TOWED SYSTEMS <sup>(1)</sup>                                       |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |
| 1.1) TB-34X FATLINE TOWED ARRAYS                                            | B     |                | -              | -          | -                 | 1,248K         | 9                                                              | 11.236            | 1,273K         | 12         | 15.281            | 1,299K         | 5          | 6.495                                    | -                   | -          | -                 | 1,299K         | 5          | 6.495             |
| 1.2) TB-29X THIN LINE TOWED ARRAYS                                          | B     |                | -              | -          | -                 | 4,200K         | 7                                                              | 29.400            | 4,284K         | 12         | 51.408            | 4,370K         | 5          | 21.848                                   | -                   | -          | -                 | 4,370K         | 5          | 21.848            |
| 1.3) TOWED ARRAY REFURBISHMENT & UPGRADES                                   | A     |                | -              | -          | -                 | -              | -                                                              | 29.219            | -              | -          | 29.803            | -              | -          | 31.556                                   | -                   | -          | -                 | -              | -          | 31.556            |
| 1.4) TOWED ARRAY HANDLER SYSTEM UPGRADE                                     | A     |                | -              | -          | -                 | -              | -                                                              | 7.408             | -              | -          | 7.556             | -              | -          | 7.708                                    | -                   | -          | -                 | -              | -          | 7.708             |
| Subtotal: 1) SA102 TOWED SYSTEMS                                            |       |                | -              | -          | 0.000             | -              | -                                                              | 77.263            | -              | -          | 104.048           | -              | -          | 67.607                                   | -                   | -          | -                 | -              | -          | 67.607            |
| 2) SA105 SONAR SUPPORT EQUIPMENT                                            |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |
| 2.1) BQN-17                                                                 | A     |                | -              | -          | -                 | -              | -                                                              | 0.887             | -              | -          | 0.905             | -              | -          | 0.923                                    | -                   | -          | -                 | -              | -          | 0.923             |
| Subtotal: 2) SA105 SONAR SUPPORT EQUIPMENT                                  |       |                | -              | -          | 0.000             | -              | -                                                              | 0.887             | -              | -          | 0.905             | -              | -          | 0.923                                    | -                   | -          | -                 | -              | -          | 0.923             |
| 3) SA106 HULL SENSORS                                                       |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |
| 3.1) VA UNIQUE SENSOR                                                       | A     |                | -              | -          | -                 | -              | -                                                              | 5.405             | -              | -          | 5.513             | -              | -          | 5.623                                    | -                   | -          | -                 | -              | -          | 5.623             |
| Subtotal: 3) SA106 HULL SENSORS                                             |       |                | -              | -          | 0.000             | -              | -                                                              | 5.405             | -              | -          | 5.513             | -              | -          | 5.623                                    | -                   | -          | -                 | -              | -          | 5.623             |
| 4) SA201 BLOCK CHANGES                                                      |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |
| 4.1) TOWED SYSTEMS ECP'S                                                    | A     |                | -              | -          | -                 | -              | -                                                              | 1.701             | -              | -          | 1.735             | -              | -          | 1.770                                    | -                   | -          | -                 | -              | -          | 1.770             |
| 4.2) ACOUSTICS <sup>(2)</sup>                                               | A     |                | -              | -          | -                 | -              | -                                                              | 3.022             | -              | -          | 3.082             | -              | -          | 5.385                                    | -                   | -          | -                 | -              | -          | 5.385             |
| Subtotal: 4) SA201 BLOCK CHANGES                                            |       |                | -              | -          | 0.000             | -              | -                                                              | 4.723             | -              | -          | 4.817             | -              | -          | 7.155                                    | -                   | -          | -                 | -              | -          | 7.155             |
| 5) SA202 PRODUCTION/ENGINEERING SUPPORT                                     |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |
| 5.1) ACOUSTICS <sup>(3)</sup>                                               | A     |                | -              | -          | -                 | -              | -                                                              | 3.168             | -              | -          | 3.231             | -              | -          | 5.644                                    | -                   | -          | -                 | -              | -          | 5.644             |
| 5.2) TOWED ARRAYS/HANDLING EQUIPMENT                                        | A     |                | -              | -          | -                 | -              | -                                                              | 3.111             | -              | -          | 3.173             | -              | -          | 3.236                                    | -                   | -          | -                 | -              | -          | 3.236             |
| Subtotal: 5) SA202 PRODUCTION/ENGINEERING SUPPORT                           |       |                | -              | -          | 0.000             | -              | -                                                              | 6.279             | -              | -          | 6.404             | -              | -          | 8.880                                    | -                   | -          | -                 | -              | -          | 8.880             |
| 6) SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT                                  |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |
| 6.1) TOWED ARRAY UNIQUE TEST EQUIPMENT                                      | A     |                | -              | -          | -                 | -              | -                                                              | 1.259             | -              | -          | 1.284             | -              | -          | 1.310                                    | -                   | -          | -                 | -              | -          | 1.310             |
| Subtotal: 6) SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT                        |       |                | -              | -          | 0.000             | -              | -                                                              | 1.259             | -              | -          | 1.284             | -              | -          | 1.310                                    | -                   | -          | -                 | -              | -          | 1.310             |
| 7) SA302 OP TRAINER UPGRADES                                                |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                          |                     |            |                   |                |            |                   |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                   | Date: February 2018                      |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|----------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2    |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2150 / SSN Acoustic Equipment |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>SSN Acoustics |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                              |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                     | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                           | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 7.1) OP TRAINER GFE                                                         | A     |                | -              | -          | -                 | -              | -                                                              | 1.112             | -              | -          | 1.134             | -              | -          | 1.157             | -                                        | -          | -                 | -              | -          | 1.157             |
| Subtotal: 7) SA302 OP TRAINER UPGRADES                                      |       |                | -              | -          | 0.000             | -              | -                                                              | 1.112             | -              | -          | 1.134             | -              | -          | 1.157             | -                                        | -          | -                 | -              | -          | 1.157             |
| 8) SA303 COTS SUPPORTABILITY UPGRADES <sup>(4)</sup>                        |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                   |                                          |            |                   |                |            |                   |
| 8.1) INSTALL SUPPORT                                                        | A     |                | -              | -          | -                 | -              | -                                                              | 1.534             | -              | -          | 1.430             | -              | -          | 2.732             | -                                        | -          | -                 | -              | -          | 2.732             |
| 8.2) AEMP                                                                   | A     |                | -              | -          | -                 | -              | -                                                              | 5.559             | -              | -          | 5.182             | -              | -          | 5.783             | -                                        | -          | -                 | -              | -          | 5.783             |
| 8.3) COTS UWC ENGINEERING SUPPORT                                           | A     |                | -              | -          | -                 | -              | -                                                              | 1.764             | -              | -          | 1.644             | -              | -          | 3.142             | -                                        | -          | -                 | -              | -          | 3.142             |
| 8.4) COTS TECH INSERTION                                                    | A     |                | -              | -          | -                 | -              | -                                                              | 19.521            | -              | -          | 18.198            | -              | -          | 20.309            | -                                        | -          | -                 | -              | -          | 20.309            |
| 8.5) SHIPYARD INSTALLATION INDUSTRIAL SUPPORT                               | A     |                | -              | -          | -                 | -              | -                                                              | 5.713             | -              | -          | 5.335             | -              | -          | 10.178            | -                                        | -          | -                 | -              | -          | 10.178            |
| Subtotal: 8) SA303 COTS SUPPORTABILITY UPGRADES                             |       |                | -              | -          | 0.000             | -              | -                                                              | 34.091            | -              | -          | 31.789            | -              | -          | 42.144            | -                                        | -          | -                 | -              | -          | 42.144            |
| 9) SA401 INITIAL TRAINING                                                   |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                   |                                          |            |                   |                |            |                   |
| 9.1) ACOUSTICS                                                              | A     |                | -              | -          | -                 | -              | -                                                              | 1.777             | -              | -          | 1.812             | -              | -          | 1.848             | -                                        | -          | -                 | -              | -          | 1.848             |
| 9.2) TOWED ARRAY                                                            | A     |                | -              | -          | -                 | -              | -                                                              | 0.667             | -              | -          | 0.680             | -              | -          | 0.694             | -                                        | -          | -                 | -              | -          | 0.694             |
| Subtotal: 9) SA401 INITIAL TRAINING                                         |       |                | -              | -          | 0.000             | -              | -                                                              | 2.444             | -              | -          | 2.492             | -              | -          | 2.542             | -                                        | -          | -                 | -              | -          | 2.542             |
| 10) SA900 CONSULTING SERVICES                                               |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                   |                                          |            |                   |                |            |                   |
| 10.1) ACOUSTICS                                                             | A     |                | -              | -          | -                 | -              | -                                                              | 1.419             | -              | -          | 1.447             | -              | -          | 1.476             | -                                        | -          | -                 | -              | -          | 1.476             |
| 10.2) TOWED SYSTEMS                                                         | A     |                | -              | -          | -                 | -              | -                                                              | 0.703             | -              | -          | 0.717             | -              | -          | 0.731             | -                                        | -          | -                 | -              | -          | 0.731             |
| Subtotal: 10) SA900 CONSULTING SERVICES                                     |       |                | -              | -          | 0.000             | -              | -                                                              | 2.122             | -              | -          | 2.164             | -              | -          | 2.207             | -                                        | -          | -                 | -              | -          | 2.207             |
| Total                                                                       |       |                | -              | -          | 0.000             | -              | -                                                              | 135.585           | -              | -          | 160.550           | -              | -          | 139.548           | -                                        | -          | -                 | -              | -          | 139.548           |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

**Footnotes:**

- <sup>(1)</sup> SA102 TOWED SYSTEMS - Refurbishment & Upgrades are variable year-to-year based on projected Towed Array inventory requirements necessary to support submarine deployment schedules.
- <sup>(2)</sup> SA201 BLOCK CHANGES - Acoustics increase in FY19 reflects one-time increase to address emergent Engineering Change Proposals (ECPs) and hardware changes necessary to address significantly expanded power and infrastructure driven by required capability improvements of SSBN modernization equipment. The FY19 increase above inflation provides the necessary funding to upgrade existing equipment to support SSBNs transition to the SWFTS acoustic model.
- <sup>(3)</sup> SA202 PRODUCTION/ENGINEERING SUPPORT - Acoustics increase in FY19 reflects one-time increase to support expedited procurement of Acoustics Upgrades equipment to address increased power and infrastructure requirements driven by required capability improvements of SSBN modernization equipment. The FY19 increase above inflation provides the necessary funding to upgrade existing equipment to support SSBNs transition to the SWFTS acoustic model.
- <sup>(4)</sup> SA303 COTS SUPPORTABILITY UPGRADES - Install Support, COTS UWC Engineering Support, and Shipyard Installation Industrial Support increases in FY19 support expedited procurement and emergent installation support to address increased power and infrastructure requirements of SSBN modernization equipment. The FY19 increase above inflation provides the necessary funding to upgrade existing equipment to support SSBNs transition to the SWFTS acoustic model.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                                           | Date: February 2018 |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|----------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|-----------------------------------------------------------|---------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2    |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2150 / SSN Acoustic Equipment |                   |                |            |                   |                |            | Aggregated Items Title:<br>Sonar Switches and Transducers |                     |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                |                   | FY 2018        |            |                   | FY 2019 Base   |            |                                                           | FY 2019 OCO         |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                     | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                         | Unit Cost (\$)      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) PU100 SONAR SWITCHES AND TRANSDUCERS <sup>(5)</sup>                      |       |                |                |            |                   |                |                                                                |                   |                |            |                   |                |            |                                                           |                     |            |                   |                |            |                   |
| 1.1) TR-353                                                                 | A     |                | -              | -          | -                 | -              | -                                                              | -                 | 6,367.25       | 100        | 0.637             | 6,494.59       | 100        | 0.649                                                     | -                   | -          | -                 | 6,494.59       | 100        | 0.649             |
| 1.2) CW-1147 DOME                                                           | A     |                | -              | -          | -                 | 18,727.20      | 10                                                             | 0.187             | 19,101.74      | 10         | 0.191             | 19,483.78      | 10         | 0.195                                                     | -                   | -          | -                 | 19,483.78      | 10         | 0.195             |
| 1.3) CW-1181E DOME                                                          | A     |                | -              | -          | -                 | 5,202.00       | 15                                                             | 0.078             | 5,306.04       | 18         | 0.096             | 5,412.16       | 18         | 0.097                                                     | -                   | -          | -                 | 5,412.16       | 18         | 0.097             |
| 1.4) DT-574 100FT                                                           | A     |                | -              | -          | -                 | 2,080.80       | 100                                                            | 0.208             | 2,122.42       | 100        | 0.212             | 2,164.86       | 100        | 0.216                                                     | -                   | -          | -                 | 2,164.86       | 100        | 0.216             |
| 1.5) MX-12309 SSGN HFSA WINDOW                                              | A     |                | -              | -          | -                 | -              | -                                                              | -                 | 188,213.00     | 1          | 0.188             | 191,977.26     | 1          | 0.192                                                     | -                   | -          | -                 | 191,977.26     | 1          | 0.192             |
| 1.6) CABLES                                                                 | A     |                | -              | -          | -                 | -              | -                                                              | 0.710             | -              | -          | 0.550             | -              | -          | 0.748                                                     | -                   | -          | -                 | -              | -          | 0.748             |
| 1.7) DT-574 50FT                                                            | A     |                | -              | -          | -                 | 572.70         | 300                                                            | 0.172             | 584.15         | 300        | 0.175             | 595.84         | 300        | 0.179                                                     | -                   | -          | -                 | 595.84         | 300        | 0.179             |
| 1.8) CW-1181C                                                               | A     |                | -              | -          | -                 | 5,202.00       | 20                                                             | 0.104             | 5,306.04       | 20         | 0.106             | 5,412.16       | 20         | 0.108                                                     | -                   | -          | -                 | 5,412.16       | 20         | 0.108             |
| 1.9) MX-10624 Window                                                        | A     |                | -              | -          | -                 | 13,941.36      | 10                                                             | 0.139             | 14,220.19      | 10         | 0.142             | 14,504.59      | 10         | 0.145                                                     | -                   | -          | -                 | 14,504.59      | 10         | 0.145             |
| 1.10) DT-5740 LSA OBE                                                       | A     |                | -              | -          | -                 | 17,006.53      | 20                                                             | 0.340             | 17,346.67      | 20         | 0.347             | 17,693.60      | 20         | 0.354                                                     | -                   | -          | -                 | 17,693.60      | 20         | 0.354             |
| 1.11) DT-511 Hydrophone                                                     | A     |                | -              | -          | -                 | 29,408.64      | 15                                                             | 0.441             | 29,996.82      | 15         | 0.450             | 30,596.75      | 15         | 0.459                                                     | -                   | -          | -                 | 30,596.75      | 15         | 0.459             |
| 1.12) DT-592 Hydrophone                                                     | A     |                | -              | -          | -                 | 41,346.54      | 18                                                             | 0.744             | 42,173.47      | 18         | 0.759             | 43,016.94      | 18         | 0.774                                                     | -                   | -          | -                 | 43,016.94      | 18         | 0.774             |
| 1.13) TR-233 Transducer                                                     | A     |                | -              | -          | -                 | 10,404.00      | 20                                                             | 0.208             | 10,612.08      | 20         | 0.212             | 10,824.32      | 20         | 0.216                                                     | -                   | -          | -                 | 10,824.32      | 20         | 0.216             |
| 1.14) TR-282 Transducer                                                     | A     |                | -              | -          | -                 | 28,469.13      | 7                                                              | 0.199             | 29,038.51      | 7          | 0.203             | 29,619.28      | 7          | 0.207                                                     | -                   | -          | -                 | 29,619.28      | 7          | 0.207             |
| 1.15) TR-302 Transducer                                                     | A     |                | -              | -          | -                 | -              | -                                                              | -                 | 23,801.38      | 18         | 0.428             | 24,277.41      | 18         | 0.437                                                     | -                   | -          | -                 | 24,277.41      | 18         | 0.437             |
| 1.16) TR-302 Window                                                         | A     |                | -              | -          | -                 | 1,040.40       | 10                                                             | 0.010             | 1,061.21       | 10         | 0.011             | 1,082.43       | 10         | 0.011                                                     | -                   | -          | -                 | 1,082.43       | 10         | 0.011             |
| 1.17) TR-321 Transducer                                                     | A     |                | -              | -          | -                 | 17,000.00      | 9                                                              | 0.153             | 17,340.00      | 9          | 0.156             | 17,686.80      | 9          | 0.159                                                     | -                   | -          | -                 | 17,686.80      | 9          | 0.159             |
| 1.18) TR-321 V CTD                                                          | A     |                | -              | -          | -                 | 19,058.23      | 20                                                             | 0.381             | 19,439.40      | 20         | 0.389             | 19,828.19      | 20         | 0.397                                                     | -                   | -          | -                 | 19,828.19      | 20         | 0.397             |
| 1.19) TR-338 Transducer                                                     | A     |                | -              | -          | -                 | 24,000.00      | 15                                                             | 0.360             | 24,480.00      | 15         | 0.367             | 24,969.60      | 15         | 0.375                                                     | -                   | -          | -                 | 24,969.60      | 15         | 0.375             |
| 1.20) TR-341 Transducer                                                     | A     |                | -              | -          | -                 | 18,360.00      | 20                                                             | 0.367             | 18,727.20      | 20         | 0.375             | 19,101.74      | 20         | 0.382                                                     | -                   | -          | -                 | 19,101.74      | 20         | 0.382             |
| 1.21) WAA OBE                                                               | A     |                | -              | -          | -                 | 12,484.80      | 50                                                             | 0.624             | 12,734.50      | 50         | 0.637             | 12,989.19      | 50         | 0.649                                                     | -                   | -          | -                 | 12,989.19      | 50         | 0.649             |
| 1.22) NCC CONNECTORS                                                        | A     |                | -              | -          | -                 | 1,040.40       | 52                                                             | 0.054             | 1,061.21       | 52         | 0.055             | 1,082.43       | 50         | 0.054                                                     | -                   | -          | -                 | 1,082.43       | 50         | 0.054             |
| 1.23) DT-699 HFSA RECEIVE                                                   | A     |                | -              | -          | -                 | 73,868.40      | 6                                                              | 0.443             | 75,345.77      | 6          | 0.452             | 76,852.68      | 6          | 0.461                                                     | -                   | -          | -                 | 76,852.68      | 6          | 0.461             |
| 1.24) TR-364 HFSP XMIT                                                      | A     |                | -              | -          | -                 | 161,807.14     | 1                                                              | 0.162             | 165,043.28     | 1          | 0.165             | 168,344.15     | 1          | 0.168                                                     | -                   | -          | -                 | 168,344.15     | 1          | 0.168             |
| 1.25) TR-317                                                                | A     |                | -              | -          | -                 | -              | -                                                              | -                 | 4,244.83       | 650        | 2.759             | 4,329.73       | 650        | 2.814                                                     | -                   | -          | -                 | 4,329.73       | 650        | 2.814             |
| 1.26) TR-281                                                                | A     |                | -              | -          | -                 | 23,327.62      | 6                                                              | 0.140             | 23,794.18      | 6          | 0.143             | 24,270.06      | 6          | 0.146                                                     | -                   | -          | -                 | 24,270.06      | 6          | 0.146             |



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|------------------------------------------------------------------------------------|--|--|--|--|--|--|--|-----------------------------------------------------------------------|--|--|--|--|--|--|------------------------------------------------------------------|--|--|--|--|
| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2019 Navy |  |  |  |  |  |  |  |                                                                       |  |  |  |  |  |  | <b>Date:</b> February 2018                                       |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2    |  |  |  |  |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |  |  |  |  |  |  | <b>Aggregated Items Title:</b><br>Sonar Switches and Transducers |  |  |  |  |

| Item Number / Title [DODIC]                              | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |            |                   | FY 2019 Total  |            |                   |
|----------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
|                                                          |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1.27) TR-302 Transducer First Article                    | A     |                | -              | -          | -                 | 150,000.00     | 2          | 0.300             | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| 1.28) TR-317 FIRST ARTICLE                               | A     |                | -              | -          | -                 | 81,640.00      | 20         | 1.633             | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| 1.29) TR-353 FIRST ARTICLE                               | A     |                | -              | -          | -                 | 81,640.00      | 20         | 1.633             | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| 1.30) DT-513 Hydrophone                                  | A     |                | -              | -          | -                 | 4,373.17       | 82         | 0.359             | 4,460.63       | 75         | 0.335             | 4,549.84       | 85         | 0.387             | -              | -          | -                 | 4,549.84       | 85         | 0.387             |
| 1.31) DT-100 HFSA RECEIVE                                | A     |                | -              | -          | -                 | 78,030.00      | 2          | 0.156             | 79,590.60      | 2          | 0.159             | 81,182.41      | 3          | 0.244             | -              | -          | -                 | 81,182.41      | 3          | 0.244             |
| <b>Subtotal: 1) PU100 SONAR SWITCHES AND TRANSDUCERS</b> |       |                | -              | -          | <b>0.000</b>      | -              | -          | <b>10.305</b>     | -              | -          | <b>10.699</b>     | -              | -          | <b>11.223</b>     | -              | -          | -                 | -              | -          | <b>11.223</b>     |
| <b>2) PU200 ENGINEERING CHANGES</b>                      |       |                |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |
| 2.1) ENGINEERING CHANGES                                 | A     |                | -              | -          | -                 | -              | -          | 0.214             | -              | -          | 0.219             | -              | -          | 0.223             | -              | -          | -                 | -              | -          | 0.223             |
| <b>Subtotal: 2) PU200 ENGINEERING CHANGES</b>            |       |                | -              | -          | <b>0.000</b>      | -              | -          | <b>0.214</b>      | -              | -          | <b>0.219</b>      | -              | -          | <b>0.223</b>      | -              | -          | -                 | -              | -          | <b>0.223</b>      |
| <b>3) PU300 PROGRAM SUPPORT</b>                          |       |                |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |
| 3.1) PROGRAM SUPPORT                                     | A     |                | -              | -          | -                 | -              | -          | 1.073             | -              | -          | 1.094             | -              | -          | 1.116             | -              | -          | -                 | -              | -          | 1.116             |
| <b>Subtotal: 3) PU300 PROGRAM SUPPORT</b>                |       |                | -              | -          | <b>0.000</b>      | -              | -          | <b>1.073</b>      | -              | -          | <b>1.094</b>      | -              | -          | <b>1.116</b>      | -              | -          | -                 | -              | -          | <b>1.116</b>      |
| <b>Total</b>                                             |       |                | -              | -          | <b>0.000</b>      | -              | -          | <b>11.592</b>     | -              | -          | <b>12.012</b>     | -              | -          | <b>12.562</b>     | -              | -          | -                 | -              | -          | <b>12.562</b>     |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

**Footnotes:**

<sup>(5)</sup> Due to Fleet usage requirements to maintain submarines in an operational status, adjustments are made to quantities throughout the FYDP. Items not procured in a single year do not impact the production line.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                  |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                   |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                             |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                     |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                              |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                     | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                               | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                               | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                          | 0.000              | 2.182          | 0.000          | 0.000                                                                 | 0.000              | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                        | 0.000              | 2.182        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                       | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                             | 0.000              | 2.182          | 0.000          | 0.000                                                                 | 0.000              | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                        | 0.000              | 2.182        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                       | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                 | <b>0.000</b>       | <b>2.182</b>   | <b>0.000</b>   | <b>0.000</b>                                                          | <b>0.000</b>       | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                 | <b>0.000</b>       | <b>2.182</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                               |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                              |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                      | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -            |
| <p><b>Description:</b><br/>Funding supports Technology Insertion, HF Active Components, and Transmit Group.</p> <p>[SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT] Funding supports Technology Insertion, HF Active Components, and Transmit Group.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                              |                    |              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                           |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                                   |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2      |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                              |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                              |                                       |                                       |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                     |                                       |                                       |                                       | <b>Modification Type:</b> SHIPALT                                     |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                                              |                                       |                                       |  |
| <b>Financial Plan</b>                                                                | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                               | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                   |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT   |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |
| B Kits                                                                               |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |
| Recurring                                                                            |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |
| 1.1.1) SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT - NonOrganic <sup>(6)</sup> | 1 / 0.000                             | - / -                                 | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                        | - / -                                 | 1 / 0.000                             |  |
| <i>Subtotal: Recurring</i>                                                           | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                        | - / -                                 | - / 0.000                             |  |
| <i>Subtotal: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>                   | 1 / 0.000                             | - / -                                 | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                        | - / -                                 | 1 / 0.000                             |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                 | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                        | - / -                                 | - / 0.000                             |  |
| <b>Installation</b>                                                                  |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT   | - / 0.000                             | - / 2.182                             | - / 0.000                             | - / 0.000                                                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                                                    | - / 0.000                             | - / 2.182                             |  |
| <i>Subtotal: Installation</i>                                                        | - / 0.000                             | - / 2.182                             | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                        | - / 0.000                             | - / 2.182                             |  |
| <b>Total</b>                                                                         |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                             | <b>0.000</b>                          | <b>2.182</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                                                 | <b>0.000</b>                          | <b>2.182</b>                          |  |
|                                                                                      |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                              |                                       |                                       |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                            |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |           |                                |           |                                |                                             |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                      |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Manufacturer Location: VA                   |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 2                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 12 |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                         |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                                                              |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                             |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                    |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                             | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                               |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                      |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                        |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                             | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                          |            | - / -                          |           | 1 / 2.182                      |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | 0 / 0.000                      |           | 1 / 2.182      |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                                                                                                                                                |            | - / -                          |           | 1 / 2.182                      |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                                        |           | - / -                          |           | 0 / 0.000                      |           | 1 / 2.182      |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                      | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                                                              |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                      |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                             | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                   | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                    | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                   | -          | -                              | 1         | -                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | -                              | -         | -                              | -                                           | -                              | -         | -                              | -         | -                                                                                            | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 1          |
| Out                                                                                                                                                                                                                  | -          | -                              | 1         | -                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | -                              | -         | -                              | -                                           | -                              | -         | -                              | -         | -                                                                                            | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 1          |
| <b>Footnotes:</b><br><sup>(6)</sup> FY17 installation reflected in this BLI 2150 exhibit utilizes equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17. |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|-----------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                  |                    |                |                |                     |                                                                       |                      |                        |                |                | <b>Date:</b> February 2018                                                         |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                             |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / SA101 SSBN LEGACY INTERFACE<br>HARDWARE |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                     |                    |                |                |                     |                                                                       |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                    |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                     | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                    | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                     | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                            | 0.000              | 0.000          | 0.000          | 11.652              | 0.000                                                                 | 11.652               | 27.527                 | 20.902         | 5.046          | 0.000                                                                              | 0.000              | 65.127        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                               | 0.000              | 0.000          | 0.000          | 11.652              | 0.000                                                                 | 11.652               | 27.527                 | 20.902         | 5.046          | 0.000                                                                              | 0.000              | 65.127        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                   | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>11.652</b>       | <b>0.000</b>                                                          | <b>11.652</b>        | <b>27.527</b>          | <b>20.902</b>  | <b>5.046</b>   | <b>0.000</b>                                                                       | <b>0.000</b>       | <b>65.127</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                               |                    |                |                |                     |                                                                       |                      |                        |                |                |                                                                                    |                    |               |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| <p><b>Description:</b></p> <p>Funding supports procurement of hardware to accommodate increased power requirements of SSBN modernization equipment.</p> <p>[SA101 SSBN LEGACY INTERFACE HARDWARE] Funding supports procurement of hardware to accommodate increased power requirements of SSBN modernization equipment.</p> |                    |                |                |                     |                                                                       |                      |                        |                |                |                                                                                    |                    |               |

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|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                      |                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>2 / SA101 SSBN LEGACY INTERFACE HARDWARE |                                       |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                                                                 |                                       |                                       |                                       |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                |                                       |                                       |                                       | <b>Modification Type:</b> SHIPALT                                     |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                                                                 |                                       |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                  | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                           | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA101 SSBN LEGACY INTERFACE HARDWARE           |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |  |
| 1.1.1) SA101 SSBN LEGACY INTERFACE HARDWARE - NonOrganic                        | - / -                                 | - / -                                 | - / -                                 | 2 / 11.652                                                            | - / -                                 | 2 / 11.652                            | 3 / 17.828                            | 1 / 6.062                             | - / -                                                                           | - / -                                 | - / -                                 | 6 / 35.542                            |  |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                             | - / -                                 | - / -                                 | - / 11.652                                                            | - / -                                 | - / 11.652                            | - / 17.828                            | - / 6.062                             | - / -                                                                           | - / -                                 | - / 0.000                             | - / 35.542                            |  |
| <i>Subtotal: SA101 SSBN LEGACY INTERFACE HARDWARE</i>                           | - / -                                 | - / -                                 | - / -                                 | 2 / 11.652                                                            | - / -                                 | 2 / 11.652                            | 3 / 17.828                            | 1 / 6.062                             | - / -                                                                           | - / -                                 | - / -                                 | 6 / 35.542                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                             | - / -                                 | - / -                                 | - / 11.652                                                            | - / -                                 | - / 11.652                            | - / 17.828                            | - / 6.062                             | - / -                                                                           | - / -                                 | - / 0.000                             | - / 35.542                            |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA101 SSBN LEGACY INTERFACE HARDWARE           | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                             | - / 0.000                             | - / 0.000                             | - / 9.699                             | - / 14.840                            | - / 5.046                                                                       | - / 0.000                             | - / 0.000                             | - / 29.585                            |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | - / 9.699                             | - / 14.840                            | - / 5.046                                                                       | - / -                                 | - / 0.000                             | - / 29.585                            |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>11.652</b>                                                         | <b>0.000</b>                          | <b>11.652</b>                         | <b>27.527</b>                         | <b>20.902</b>                         | <b>5.046</b>                                                                    | <b>0.000</b>                          | <b>0.000</b>                          | <b>65.127</b>                         |  |

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|-------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|-------------------------------------|-----------|--------------------------------|----------------|--------------------------------|---------------------------------------------------------------------------------|--------------------------------|----------------|--------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                  |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                            |                                |           |                                |                |                                     |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                             |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                |           |                                |                |                                     |           |                                |                |                                | <b>Modification Number / Title:</b><br>2 / SA101 SSBN LEGACY INTERFACE HARDWARE |                                |                |              |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                | <b>MDAP/MAIS Code:</b>              |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA101 SSBN LEGACY INTERFACE HARDWARE                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                          |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                | Manufacturer Location: Manassas, VA |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                | Production Leadtime (in Months): 12 |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                        |                                |           |                                | <b>FY 2020</b> |                                     |           |                                | <b>FY 2021</b> |                                |                                                                                 |                                | <b>FY 2022</b> |              |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                              |            |                                |                                |           |                                | Dec 2018       |                                |           |                                | Dec 2019                                                              |                                |           |                                | Dec 2020       |                                     |           |                                | Dec 2021       |                                |                                                                                 |                                | Dec 2022       |              |           |           | Dec 2023       |           |           |           |           |            |
| Delivery Dates                                                                                              |            |                                |                                |           |                                | Dec 2019       |                                |           |                                | Dec 2020                                                              |                                |           |                                | Dec 2021       |                                     |           |                                | Dec 2022       |                                |                                                                                 |                                | Dec 2023       |              |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SA101 SSBN LEGACY INTERFACE HARDWARE |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                    |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                       | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                      |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                                 | <b>To Complete</b>             |                | <b>Total</b> |           |           |                |           |           |           |           |            |
|                                                                                                             |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                       | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)      |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                                 | Qty (Each) / Total Cost (\$ M) |                |              |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | 2 / 9.699                      |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | 0 / 0.000                      |                | 2 / 9.699    |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | 3 / 14.840                          |           | - / -                          |                | - / -                          |                                                                                 | 0 / 0.000                      |                | 3 / 14.840   |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | 1 / 5.046                      |                | - / -                          |                                                                                 | 0 / 0.000                      |                | 1 / 5.046    |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| To Complete                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                                 | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| Total                                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | 2 / 9.699                      |                | 3 / 14.840                          |           | 1 / 5.046                      |                | - / -                          |                                                                                 | 0 / 0.000                      |                | 6 / 29.585   |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                                 |                                |                |              |           |           |                |           |           |           |           |            |
|                                                                                                             | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                        |                                |           |                                | <b>FY 2020</b> |                                     |           |                                | <b>FY 2021</b> |                                |                                                                                 |                                | <b>FY 2022</b> |              |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                             |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                             | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                           | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                                       | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>    | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                          | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                                     | -                              | -         | -                              | -              | 1                                   | 1         | -                              | 1              | 1                              | -                                                                               | 1                              | -              | 1            | -         | -         | -              | -         | -         | -         | -         | 6          |
| Out                                                                                                         | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                                     | -                              | -         | -                              | -              | 1                                   | 1         | -                              | 1              | 1                              | -                                                                               | 1                              | -              | 1            | -         | -         | -              | -         | -         | -         | -         | 6          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                        |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                    |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / SA106 LOW COST CONFORMAL<br>ARRAY KITS |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                   |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                    | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                 | 0.000              | 12.974         | 13.234         | 13.498                                                                | 0.000              | 13.498               | 13.769                 | 14.044         | 14.325         | 14.612                                                                            | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                    | 0.000              | 12.974         | 13.234         | 13.498                                                                | 0.000              | 13.498               | 13.769                 | 14.044         | 14.325         | 14.612                                                                            | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                        | <b>0.000</b>       | <b>12.974</b>  | <b>13.234</b>  | <b>13.498</b>                                                         | <b>0.000</b>       | <b>13.498</b>        | <b>13.769</b>          | <b>14.044</b>  | <b>14.325</b>  | <b>14.612</b>                                                                     | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                      |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                   |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| <p><b>Description:</b><br/>Procurement of Low Cost Conformal Array (LCCA) to provide enhanced situational awareness and collision avoidance capability.</p> <p>[SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS] Procurement of Low Cost Conformal Array (LCCA) to provide enhanced situational awareness and collision avoidance capability.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                   |                    |                   |



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|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                          |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                     |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2     |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>3 / SA106 LOW COST CONFORMAL ARRAY KITS |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                             |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                |                                       |                                       |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                    |                                       |                                       |                                       | <b>Modification Type:</b> SHIPALT                                     |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                                |                                       |                                       |  |
| <b>Financial Plan</b>                                                               | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                 | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                  |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA106 LOW COST CONFORMAL ARRAY KITS                |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |
| B Kits                                                                              |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |
| Recurring                                                                           |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |
| 1.1.1) SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS - NonOrganic <sup>(7)</sup> | 2 / 0.000                             | 2 / 9.437                             | 2 / 9.626                             | 2 / 9.818                                                             | - / -                                 | 2 / 9.818                             | 2 / 10.015                            | 2 / 10.215                            | 2 / 10.419                            | 2 / 10.628                                                                     | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                          | - / 0.000                             | - / 9.437                             | - / 9.626                             | - / 9.818                                                             | - / -                                 | - / 9.818                             | - / 10.015                            | - / 10.215                            | - / 10.419                            | - / 10.628                                                                     | Continuing                            | Continuing                            |  |
| <i>Subtotal: SA106 LOW COST CONFORMAL ARRAY KITS</i>                                | 2 / 0.000                             | 2 / 9.437                             | 2 / 9.626                             | 2 / 9.818                                                             | - / -                                 | 2 / 9.818                             | 2 / 10.015                            | 2 / 10.215                            | 2 / 10.419                            | 2 / 10.628                                                                     | Continuing                            | Continuing                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                | - / 0.000                             | - / 9.437                             | - / 9.626                             | - / 9.818                                                             | - / -                                 | - / 9.818                             | - / 10.015                            | - / 10.215                            | - / 10.419                            | - / 10.628                                                                     | Continuing                            | Continuing                            |  |
| <b>Installation</b>                                                                 |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA106 LOW COST CONFORMAL ARRAY KITS                | - / 0.000                             | - / 3.537                             | - / 3.608                             | - / 3.680                                                             | - / 0.000                             | - / 3.680                             | - / 3.754                             | - / 3.829                             | - / 3.906                             | - / 3.984                                                                      | Continuing                            | Continuing                            |  |
| <i>Subtotal: Installation</i>                                                       | - / 0.000                             | - / 3.537                             | - / 3.608                             | - / 3.680                                                             | - / -                                 | - / 3.680                             | - / 3.754                             | - / 3.829                             | - / 3.906                             | - / 3.984                                                                      | Continuing                            | Continuing                            |  |
| <b>Total</b>                                                                        |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                            | <b>0.000</b>                          | <b>12.974</b>                         | <b>13.234</b>                         | <b>13.498</b>                                                         | <b>0.000</b>                          | <b>13.498</b>                         | <b>13.769</b>                         | <b>14.044</b>                         | <b>14.325</b>                         | <b>14.612</b>                                                                  | <b>Continuing</b>                     | <b>Continuing</b>                     |  |
|                                                                                     |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |  |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------------------------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                      |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                | <b>Date:</b> February 2018                                                     |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                 |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>3 / SA106 LOW COST CONFORMAL ARRAY KITS |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                         |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                                         |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Modification Item 1 of 1:</b> SA106 LOW COST CONFORMAL ARRAY KITS                                                                                                                            |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Manufacturer Information</b>                                                                                                                                                                 |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| Manufacturer Name: LOCKHEED MARTIN                                                                                                                                                              |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                | Manufacturer Location: SYRACUSE, NY |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| Administrative Leadtime (in Months): 6                                                                                                                                                          |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                | Production Leadtime (in Months): 12 |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Dates</b>                                                                                                                                                                                    | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                        | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| Contract Dates                                                                                                                                                                                  | Apr 2017                       | Apr 2018                       | Apr 2019                       | Apr 2020                       | Apr 2021                                                              | Apr 2022                       | Apr 2023                       |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| Delivery Dates                                                                                                                                                                                  | Apr 2018                       | Apr 2019                       | Apr 2020                       | Apr 2021                       | Apr 2022                                                              | Apr 2023                       | Apr 2024                       |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Information</b>                                                                                                                                                                 |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS                                                                                  |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Cost</b>                                                                                                                                                                        | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                    | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                 | <b>To Complete</b>             | <b>Total</b>                   |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
|                                                                                                                                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| Prior Years                                                                                                                                                                                     | - / -                          | 2 / 3.537                      | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | 0 / 0.000                      | 2 / 3.537                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2017                                                                                                                                                                                         | - / -                          | - / -                          | 2 / 3.608                      | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | 0 / 0.000                      | 2 / 3.608                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2018                                                                                                                                                                                         | - / -                          | - / -                          | - / -                          | 2 / 3.680                      | 0 / 0.000                                                             | 2 / 3.680                      | - / -                          | - / -                          | - / -                          | - / -                                                                          | 0 / 0.000                      | 2 / 3.680                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2019                                                                                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | 2 / 3.754                      | - / -                          | - / -                          | - / -                                                                          | 0 / 0.000                      | 2 / 3.754                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2020                                                                                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | 2 / 3.829                      | - / -                          | - / -                                                                          | 0 / 0.000                      | 2 / 3.829                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2021                                                                                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | 2 / 3.906                      | - / -                                                                          | 0 / 0.000                      | 2 / 3.906                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2022                                                                                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 3.984                                                                      | 0 / 0.000                      | 2 / 3.984                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| FY 2023                                                                                                                                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | 2 / 4.063                      | 2 / 4.063                      |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| To Complete                                                                                                                                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | Continuing                     | Continuing                     |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| Total                                                                                                                                                                                           | - / -                          | 2 / 3.537                      | 2 / 3.608                      | 2 / 3.680                      | 0 / 0.000                                                             | 2 / 3.680                      | 2 / 3.754                      | 2 / 3.829                      | 2 / 3.906                      | 2 / 3.984                                                                      | Continuing                     | Continuing                     |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Schedule</b>                                                                                                                                                                    |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
|                                                                                                                                                                                                 | <b>PYS</b>                     | <b>FY 2017</b>                 |                                |                                |                                                                       | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                                 |                                |                                |                                     | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |  |
|                                                                                                                                                                                                 |                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                             | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                           | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |  |
| In                                                                                                                                                                                              | -                              | -                              | -                              | 2                              | -                                                                     | -                              | -                              | 2                              | -                              | -                                                                              | -                              | 2                              | -                                   | -              | -         | 2         | -         | -              | -         | 2         | -         | -              | -         | 2         | -         | -              | -         | 2         | -         | Cont.     | Cont.      |  |
| Out                                                                                                                                                                                             | -                              | -                              | -                              | 2                              | -                                                                     | -                              | -                              | 2                              | -                              | -                                                                              | -                              | 2                              | -                                   | -              | -         | 2         | -         | -              | -         | 2         | -         | -              | -         | 2         | -         | -              | -         | 2         | -         | Cont.     | Cont.      |  |
| <b>Footnotes:</b>                                                                                                                                                                               |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |
| <sup>(7)</sup> FY17 installation reflected in this BLI 2150 exhibit utilizes equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17. |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                |                                |                                |                                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                      |                    |                |                |                     |                                                                       |                      |                        |                |                | <b>Date:</b> February 2018                                                 |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                 |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / SA106 HIGH FREQUENCY SAIL ARRAY |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                         |                    |                |                |                     |                                                                       |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                            |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                         | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                    | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                             | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                              | 0.000              | 3.846          | 6.117          | 6.120               | 0.000                                                                 | 6.120                | 8.405                  | 6.492          | 2.249          | 0.000                                                                      | 0.000              | 33.229        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                 | 0.000              | 3.846          | 6.117          | 6.120               | 0.000                                                                 | 6.120                | 8.405                  | 6.492          | 2.249          | 0.000                                                                      | 0.000              | 33.229        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                     | <b>0.000</b>       | <b>3.846</b>   | <b>6.117</b>   | <b>6.120</b>        | <b>0.000</b>                                                          | <b>6.120</b>         | <b>8.405</b>           | <b>6.492</b>   | <b>2.249</b>   | <b>0.000</b>                                                               | <b>0.000</b>       | <b>33.229</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                   |                    |                |                |                     |                                                                       |                      |                        |                |                |                                                                            |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                          | -                  | -              | -              | -                   | -                                                                     | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| <b>Description:</b><br>[SA106 HIGH FREQUENCY SAIL ARRAY] The High Frequency Sail Array (HFSA) provides high frequency active and passive capability supporting Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASUW) for SSNs, and contact avoidance for SSNs and SSBNs. |                    |                |                |                     |                                                                       |                      |                        |                |                |                                                                            |                    |               |

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|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                 |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>4 / SA106 HIGH FREQUENCY SAIL ARRAY |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                            |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                         |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                            |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                             | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA106 HIGH FREQUENCY SAIL ARRAY                |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| 1.1.1) SA106 HIGH FREQUENCY SAIL ARRAY - NonOrganic                             | - / -                                 | 2 / 3.846                             | 1 / 1.961                             | 2 / 4.001                                                             | - / -                                 | 2 / 4.001                             | 2 / 4.081                             | 1 / 2.082                             | - / -                                 | - / -                                                                      | - / -                                 | 8 / 15.971                            |  |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                             | - / 3.846                             | - / 1.961                             | - / 4.001                                                             | - / -                                 | - / 4.001                             | - / 4.081                             | - / 2.082                             | - / -                                 | - / -                                                                      | - / 0.000                             | - / 15.971                            |  |
| <i>Subtotal: SA106 HIGH FREQUENCY SAIL ARRAY</i>                                | - / -                                 | 2 / 3.846                             | 1 / 1.961                             | 2 / 4.001                                                             | - / -                                 | 2 / 4.001                             | 2 / 4.081                             | 1 / 2.082                             | - / -                                 | - / -                                                                      | - / -                                 | 8 / 15.971                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                             | - / 3.846                             | - / 1.961                             | - / 4.001                                                             | - / -                                 | - / 4.001                             | - / 4.081                             | - / 2.082                             | - / -                                 | - / -                                                                      | - / 0.000                             | - / 15.971                            |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA106 HIGH FREQUENCY SAIL ARRAY                | - / 0.000                             | - / 0.000                             | - / 4.156                             | - / 2.119                                                             | - / 0.000                             | - / 2.119                             | - / 4.324                             | - / 4.410                             | - / 2.249                             | - / 0.000                                                                  | - / 0.000                             | - / 17.258                            |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                             | - / -                                 | - / 4.156                             | - / 2.119                                                             | - / -                                 | - / 2.119                             | - / 4.324                             | - / 4.410                             | - / 2.249                             | - / -                                                                      | - / 0.000                             | - / 17.258                            |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                          | <b>3.846</b>                          | <b>6.117</b>                          | <b>6.120</b>                                                          | <b>0.000</b>                          | <b>6.120</b>                          | <b>8.405</b>                          | <b>6.492</b>                          | <b>2.249</b>                          | <b>0.000</b>                                                               | <b>0.000</b>                          | <b>33.229</b>                         |  |
|                                                                                 |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |

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|-----------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|-------------------------------------|-----------|--------------------------------|----------------|--------------------------------|----------------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                    |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                            |                                |           |                                |                |                                     |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2               |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                |           |                                |                |                                     |           |                                |                |                                | <b>Modification Number / Title:</b><br>4 / SA106 HIGH FREQUENCY SAIL ARRAY |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                | <b>MDAP/MAIS Code:</b>              |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA106 HIGH FREQUENCY SAIL ARRAY                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: NUWC Neport                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                | Manufacturer Location: Newport, RI  |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                | Production Leadtime (in Months): 17 |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                  |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                        |                                |           |                                | <b>FY 2020</b> |                                     |           |                                | <b>FY 2021</b> |                                |                                                                            |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                |            | Dec 2016                       |                                |           |                                | Dec 2017       |                                |           |                                | Dec 2018                                                              |                                |           |                                | Dec 2019       |                                     |           |                                | Dec 2020       |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                |            | May 2018                       |                                |           |                                | May 2019       |                                |           |                                | May 2020                                                              |                                |           |                                | May 2021       |                                     |           |                                | May 2022       |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA106 HIGH FREQUENCY SAIL ARRAY |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                      |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                       | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                      |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                            | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                               |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                       | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)      |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                            | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                   |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                                       |            | - / -                          | - / -                          |           | 2 / 4.156                      |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | 0 / 0.000                      |           | 2 / 4.156 |                |           |           |           |           |            |
| FY 2018                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | 1 / 2.119                      |           | 0 / 0.000                      |                                                                       | 1 / 2.119                      |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | 0 / 0.000                      |           | 1 / 2.119 |                |           |           |           |           |            |
| FY 2019                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | 2 / 4.324                      |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | 0 / 0.000                      |           | 2 / 4.324 |                |           |           |           |           |            |
| FY 2020                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | 2 / 4.410                           |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | 0 / 0.000                      |           | 2 / 4.410 |                |           |           |           |           |            |
| FY 2021                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | 1 / 2.249                      |                | - / -                          |                                                                            | - / -                          |                | 0 / 0.000                      |           | 1 / 2.249 |                |           |           |           |           |            |
| FY 2022                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2023                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| To Complete                                                                                   |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                       | - / -                          |           | - / -                          |                | - / -                               |           | - / -                          |                | - / -                          |                                                                            | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| Total                                                                                         |            | - / -                          | - / -                          |           | 2 / 4.156                      |                | 1 / 2.119                      |           | 0 / 0.000                      |                                                                       | 1 / 2.119                      |           | 2 / 4.324                      |                | 2 / 4.410                           |           | 1 / 2.249                      |                | - / -                          |                                                                            | 0 / 0.000                      |                | 8 / 17.258                     |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                       |                                |           |                                |                |                                     |           |                                |                |                                |                                                                            |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                        |                                |           |                                | <b>FY 2020</b> |                                     |           |                                | <b>FY 2021</b> |                                |                                                                            |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                               |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                             | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                           | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                                  | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                            | -          | -                              | -                              | -         | -                              | -              | -                              | 2         | -                              | -                                                                     | -                              | 1         | -                              | -              | -                                   | 2         | -                              | -              | -                              | 2                                                                          | -                              | -              | -                              | 1         | -         | -              | -         | -         | -         | -         | 8          |
| Out                                                                                           | -          | -                              | -                              | -         | -                              | -              | -                              | 2         | -                              | -                                                                     | -                              | 1         | -                              | -              | -                                   | 2         | -                              | -              | -                              | 2                                                                          | -                              | -              | -                              | 1         | -         | -              | -         | -         | -         | -         | 8          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                       |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>5 / SA106 OHIO CLASS LARGE VERTICAL ARRAY |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                  |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                   | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                | 0.000              | 0.000          | 0.000          | 18.525                                                                | 0.000              | 18.525               | 18.896                 | 29.400         | 29.989         | 30.588                                                                           | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.000              | 0.000          | 0.000          | 18.525                                                                | 0.000              | 18.525               | 18.896                 | 29.400         | 29.989         | 30.588                                                                           | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                       | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>18.525</b>                                                         | <b>0.000</b>       | <b>18.525</b>        | <b>18.896</b>          | <b>29.400</b>  | <b>29.989</b>  | <b>30.588</b>                                                                    | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                  |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| <b>Description:</b><br>[SA106 OHIO CLASS LARGE VERTICAL ARRAY] The Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for OHIO class submarines. SSBN systems will be approximately half the width of their SSN counterparts. This variance reflects the difference in mission, expected environment, and requirements. |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                  |                    |                   |

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|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>5 / SA106 OHIO CLASS LARGE VERTICAL ARRAY |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                  |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                         |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                                  |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                   | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA106 OHIO CLASS LARGE VERTICAL ARRAY          |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
| 1.1.1) SA106 OHIO CLASS LARGE VERTICAL ARRAY - NonOrganic                       | - / -                                 | - / -                                 | - / -                                 | 1 / 18.525                                                            | - / -                                 | 1 / 18.525                            | 1 / 18.896                            | 1 / 19.273                            | 1 / 19.659                            | 1 / 20.052                                                                       | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                      | <i>- / 0.000</i>                      | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / 18.525</i>                                                     | <i>- / -</i>                          | <i>- / 18.525</i>                     | <i>- / 18.896</i>                     | <i>- / 19.273</i>                     | <i>- / 19.659</i>                     | <i>- / 20.052</i>                                                                | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: SA106 OHIO CLASS LARGE VERTICAL ARRAY</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>1 / 18.525</i>                                                     | <i>- / -</i>                          | <i>1 / 18.525</i>                     | <i>1 / 18.896</i>                     | <i>1 / 19.273</i>                     | <i>1 / 19.659</i>                     | <i>1 / 20.052</i>                                                                | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | <i>- / 0.000</i>                      | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / 18.525</i>                                                     | <i>- / -</i>                          | <i>- / 18.525</i>                     | <i>- / 18.896</i>                     | <i>- / 19.273</i>                     | <i>- / 19.659</i>                     | <i>- / 20.052</i>                                                                | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA106 OHIO CLASS LARGE VERTICAL ARRAY          |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
|                                                                                 | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 10.127                            | - / 10.330                            | - / 10.536                                                                       | Continuing                            | Continuing                            |  |
| <i>Subtotal: Installation</i>                                                   | <i>- / 0.000</i>                      | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / 10.127</i>                     | <i>- / 10.330</i>                     | <i>- / 10.536</i>                                                                | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>18.525</b>                                                         | <b>0.000</b>                          | <b>18.525</b>                         | <b>18.896</b>                         | <b>29.400</b>                         | <b>29.989</b>                         | <b>30.588</b>                                                                    | <b>Continuing</b>                     | <b>Continuing</b>                     |  |

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|-----------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                          |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                     |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>5 / SA106 OHIO CLASS LARGE VERTICAL ARRAY |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA106 OHIO CLASS LARGE VERTICAL ARRAY                              |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Electric Boat                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Manufacturer Location: Groton, CT   |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Production Leadtime (in Months): 24 |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                        |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                  |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                      |            |                                |           |                                |           |                                |           |                                |           | Nov 2018                                                              |           |                                |           | Nov 2019                       |                                     |                                |           | Nov 2020                       |           |                                                                                  |           | Nov 2021                       |           |                                |           | Nov 2022       |           |           |           |           |            |
| Delivery Dates                                                                                      |            |                                |           |                                |           |                                |           |                                |           | Nov 2020                                                              |           |                                |           | Nov 2021                       |                                     |                                |           | Nov 2022                       |           |                                                                                  |           | Nov 2023                       |           |                                |           | Nov 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA106 OHIO CLASS LARGE VERTICAL ARRAY |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                            |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                    |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                   |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                     |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                        |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2017                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | 1 / 10.127                     |           | - / -                          |           | - / -                                                                            |           | 0 / 0.000                      |           | 1 / 10.127                     |           |                |           |           |           |           |            |
| FY 2020                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | 1 / 10.330                     |           | - / -                                                                            |           | 0 / 0.000                      |           | 1 / 10.330                     |           |                |           |           |           |           |            |
| FY 2021                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | 1 / 10.536                                                                       |           | 0 / 0.000                      |           | 1 / 10.536                     |           |                |           |           |           |           |            |
| FY 2022                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                            |           | 1 / 10.747                     |           | 1 / 10.747                     |           |                |           |           |           |           |            |
| FY 2023                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                            |           | 1 / 10.962                     |           | 1 / 10.962                     |           |                |           |           |           |           |            |
| To Complete                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                            |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| Total                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | 1 / 10.127                     |           | 1 / 10.330                     |           | 1 / 10.536                                                                       |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                  |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                             | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                        | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                  | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | -                              | -         | -                              | -                                   | -                              | -         | 1                              | -         | -                                                                                | -         | 1                              | -         | -                              | -         | 1              | -         | -         | -         | Cont.     | Cont.      |
| Out                                                                                                 | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | -                              | -         | -                              | -                                   | -                              | -         | 1                              | -         | -                                                                                | -         | 1                              | -         | -                              | -         | 1              | -         | -         | -         | Cont.     | Cont.      |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                           |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>6 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                      |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                       | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                    | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.000              | 0.000          | 0.000          | 0.000                                                                 | 0.000              | 0.000                | 43.405                 | 44.273         | 65.077         | 66.379                                                                               | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                    | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.000              | 0.000          | 0.000          | 0.000                                                                 | 0.000              | 0.000                | 43.405                 | 44.273         | 65.077         | 66.379                                                                               | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                    | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                          | <b>0.000</b>       | <b>0.000</b>         | <b>43.405</b>          | <b>44.273</b>  | <b>65.077</b>  | <b>66.379</b>                                                                        | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                      |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                    | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                    | -                  | -                 |
| <p><b>Description:</b><br/> [SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY] Procurement of the VIRGINIA Class Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for the VIRGINIA class submarines. SSN systems will be approximately twice the width of their SSBN counterparts. This variance reflects the difference in mission, expected environment, and requirements.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                      |                    |                   |

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|                                                                                   |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
|-----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                        |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                           |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2   |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>6 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                           |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                      |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                           |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                         |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                                      |                                       |                                       |  |
| <b>Financial Plan</b>                                                             | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                       | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
| <i><b>Modification Item 1 of 1:</b> SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY</i> |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
| B Kits                                                                            |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
| Recurring                                                                         |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
| 1.1.1) SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY - NonOrganic                     | - / -                                 | - / -                                 | - / -                                 | - / -                                                                 | - / -                                 | - / -                                 | 1 / 43.405                            | 1 / 44.273                            | 1 / 45.159                            | 1 / 46.062                                                                           | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                        | <i>- / 0.000</i>                      | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / 43.405</i>                     | <i>- / 44.273</i>                     | <i>- / 45.159</i>                     | <i>- / 46.062</i>                                                                    | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY</i>                        | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>1 / 43.405</i>                     | <i>1 / 44.273</i>                     | <i>1 / 45.159</i>                     | <i>1 / 46.062</i>                                                                    | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                              | <i>- / 0.000</i>                      | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / 43.405</i>                     | <i>- / 44.273</i>                     | <i>- / 45.159</i>                     | <i>- / 46.062</i>                                                                    | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <b>Installation</b>                                                               |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
| <i><b>Modification Item 1 of 1:</b> SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY</i> |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
|                                                                                   | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 19.918                            | - / 20.317                                                                           | Continuing                            | Continuing                            |  |
| <i>Subtotal: Installation</i>                                                     | <i>- / 0.000</i>                      | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / 19.918</i>                     | <i>- / 20.317</i>                                                                    | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <b>Total</b>                                                                      |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                      |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>43.405</b>                         | <b>44.273</b>                         | <b>65.077</b>                         | <b>66.379</b>                                                                        | <b>Continuing</b>                     | <b>Continuing</b>                     |  |

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|                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
|-----------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|-------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                          |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                     |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>6 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>Modification Item 1 of 1:</b> SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY                          |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>Manufacturer Information</b>                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| Manufacturer Name: Electric Boat                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Manufacturer Location: Groton, CT   |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| Administrative Leadtime (in Months): 3                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Production Leadtime (in Months): 24 |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>Dates</b>                                                                                        |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                      |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |       |
| Contract Dates                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           | Nov 2019                       |                                     |                                |           | Nov 2020                       |           |                                                                                      |           | Nov 2021                       |           |                                |           | Nov 2022       |           |           |           |           |            |       |
| Delivery Dates                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           | Nov 2021                       |                                     |                                |           | Nov 2022                       |           |                                                                                      |           | Nov 2023                       |           |                                |           | Nov 2024       |           |           |           |           |            |       |
| <b>Installation Information</b>                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>Method of Implementation:</b> TBD:: Installation Name: SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
| <b>Installation Cost</b>                                                                            |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                    |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                       |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |       |
|                                                                                                     |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                        |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                       |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |       |
| Prior Years                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |       |
| FY 2017                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |       |
| FY 2018                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |       |
| FY 2019                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |       |
| FY 2020                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | 1 / 19.918                                                                           |           | - / -                          |           | 0 / 0.000                      |           | 1 / 19.918     |           |           |           |           |            |       |
| FY 2021                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | 1 / 20.317                     |           | 0 / 0.000                      |           | 1 / 20.317     |           |           |           |           |            |       |
| FY 2022                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | 1 / 20.723                     |           | 1 / 20.723     |           |           |           |           |            |       |
| FY 2023                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | 1 / 21.137                     |           | 1 / 21.137     |           |           |           |           |            |       |
| To Complete                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                |           | - / -                          |           | Continuing                     |           | Continuing     |           |           |           |           |            |       |
| Total                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | 1 / 19.918                                                                           |           | 1 / 20.317                     |           | Continuing                     |           | Continuing     |           |           |           |           |            |       |
| <b>Installation Schedule</b>                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |       |
|                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                      |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |       |
|                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                             | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                            | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |       |
| In                                                                                                  | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | -                              | -         | -                              | -                                   | -                              | -         | -                              | -         | -                                                                                    | -         | -                              | -         | 1                              | -         | -              | -         | -         | 1         | -         | Cont.      | Cont. |
| Out                                                                                                 | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | -                              | -         | -                              | -                                   | -                              | -         | -                              | -         | -                                                                                    | -         | -                              | -         | 1                              | -         | -              | -         | -         | 1         | -         | Cont.      | Cont. |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                     |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>7 / SA303 688/688I TECHNOLOGY<br>INSERTION KITS (SWFTS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                 | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                              | -                  | -                 |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.000              | 13.274         | 47.836         | 62.603                                                                | 0.000              | 62.603               | 55.560                 | 11.974         | 34.519         | 71.583                                                                                         | Continuing         | Continuing        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                              | -                  | -                 |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.000              | 13.274         | 47.836         | 62.603                                                                | 0.000              | 62.603               | 55.560                 | 11.974         | 34.519         | 71.583                                                                                         | Continuing         | Continuing        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                              | -                  | -                 |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>0.000</b>       | <b>13.274</b>  | <b>47.836</b>  | <b>62.603</b>                                                         | <b>0.000</b>       | <b>62.603</b>        | <b>55.560</b>          | <b>11.974</b>  | <b>34.519</b>  | <b>71.583</b>                                                                                  | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                                |                    |                   |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                              | -                  | -                 |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                              | -                  | -                 |
| <p><b>Description:</b><br/> Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components.</p> <p>[SA303 688i TECHNOLOGY INSERTION KITS (SWFTS)] Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                                |                    |                   |

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|-----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                        |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                                  |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2   |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>7 / SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS) |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                           |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                             |                                       |                                       |  |
| <b>Models of Systems Affected:</b> SSN                                            |                                       |                                       |                                       | <b>Modification Type:</b> SHIPALT                                     |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                                             |                                       |                                       |  |
| <b>Financial Plan</b>                                                             | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                              | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS) |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| B Kits                                                                            |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| Non-Recurring                                                                     |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| 1.1.1) SA303 688i TECHNOLOGY INSERTION KITS (SWFTS) - NonOrganic <sup>(6)</sup>   | 6 / 0.000                             | - / -                                 | 6 / 47.836                            | 6 / 48.792                                                            | - / -                                 | 6 / 48.792                            | 5 / 41.473                            | - / -                                 | 4 / 34.519                            | 7 / 61.617                                                                                  | Continuing                            | Continuing                            |  |
| <i>Subtotal: Non-Recurring</i>                                                    | - / 0.000                             | - / -                                 | - / 47.836                            | - / 48.792                                                            | - / -                                 | - / 48.792                            | - / 41.473                            | - / -                                 | - / 34.519                            | - / 61.617                                                                                  | Continuing                            | Continuing                            |  |
| <i>Subtotal: SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS)</i>                 | 6 / 0.000                             | - / -                                 | 6 / 47.836                            | 6 / 48.792                                                            | - / -                                 | 6 / 48.792                            | 5 / 41.473                            | - / -                                 | 4 / 34.519                            | 7 / 61.617                                                                                  | Continuing                            | Continuing                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                              | - / 0.000                             | - / -                                 | - / 47.836                            | - / 48.792                                                            | - / -                                 | - / 48.792                            | - / 41.473                            | - / -                                 | - / 34.519                            | - / 61.617                                                                                  | Continuing                            | Continuing                            |  |
| <b>Installation</b>                                                               |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS) | - / 0.000                             | - / 13.274                            | - / 0.000                             | - / 13.811                                                            | - / 0.000                             | - / 13.811                            | - / 14.087                            | - / 11.974                            | - / 0.000                             | - / 9.966                                                                                   | Continuing                            | Continuing                            |  |
| <i>Subtotal: Installation</i>                                                     | - / 0.000                             | - / 13.274                            | - / -                                 | - / 13.811                                                            | - / -                                 | - / 13.811                            | - / 14.087                            | - / 11.974                            | - / -                                 | - / 9.966                                                                                   | Continuing                            | Continuing                            |  |
| <b>Total</b>                                                                      |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                          | <b>0.000</b>                          | <b>13.274</b>                         | <b>47.836</b>                         | <b>62.603</b>                                                         | <b>0.000</b>                          | <b>62.603</b>                         | <b>55.560</b>                         | <b>11.974</b>                         | <b>34.519</b>                         | <b>71.583</b>                                                                               | <b>Continuing</b>                     | <b>Continuing</b>                     |  |
|                                                                                   |                                       |                                       |                                       |                                                                       |                                       |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>7 / SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA303 688/688I TECHNOLOGY INSERTION KITS (SWFTS)                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Manufacturer Location: VA           |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Production Leadtime (in Months): 12 |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                         |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                             |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                       |            |                                |           |                                |           | Apr 2018                       |           |                                |           | Apr 2019                                                              |           |                                |           | Apr 2020                       |                                     |                                |           |                                |           |                                                                                             |           | Apr 2022                       |           |                                |           | Apr 2023       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                       |            |                                |           |                                |           | Apr 2019                       |           |                                |           | Apr 2020                                                              |           |                                |           | Apr 2021                       |                                     |                                |           |                                |           |                                                                                             |           | Apr 2023                       |           |                                |           | Apr 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA303 688i TECHNOLOGY INSERTION KITS (SWFTS)                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                             |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                    |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                              |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                      |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                        |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                              |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                          |            | - / -                          |           | 6 / 13.274                     |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 6 / 13.274                     |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | 6 / 13.811                     |           | 0 / 0.000                                                             |           | 6 / 13.811                     |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 6 / 13.811                     |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | 6 / 14.087                     |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 6 / 14.087                     |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | 5 / 11.974                     |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 5 / 11.974                     |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | 4 / 9.966                                                                                   |           | 0 / 0.000                      |           | 4 / 9.966                      |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 7 / 17.789                     |           | 7 / 17.789                     |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                |            | - / -                          |           | 6 / 13.274                     |           | - / -                          |           | 6 / 13.811                     |           | 0 / 0.000                                                             |           | 6 / 13.811                     |           | 6 / 14.087                     |                                     | 5 / 11.974                     |           | - / -                          |           | 4 / 9.966                                                                                   |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                      | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                             |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                      |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                             | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                   | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                   | -          | -                              | -         | 6                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | 3                              | 3         | -                              | -                                   | 3                              | 3         | -                              | -         | 2                                                                                           | 3         | -                              | -         | -                              | -         | -              | 2         | 2         | -         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                  | -          | -                              | -         | 6                              | -         | -                              | -         | -                              | -         | -                                                                     | -         | 3                              | 3         | -                              | -                                   | 3                              | 3         | -                              | -         | 2                                                                                           | 3         | -                              | -         | -                              | -         | -              | 2         | 2         | -         | Cont.     | Cont.      |
| <b>Footnotes:</b><br><sup>(8)</sup> FY17 installation reflected in this BLI 2150 exhibit utilizes equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17. |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                 |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>8 / SA303 SSGN TECHNOLOGY<br>INSERTION KITS (SWFTS) |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                            |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                             | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                          | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.000              | 0.000          | 0.000          | 16.264                                                                | 0.000              | 16.264               | 21.283                 | 4.788          | 0.000          | 0.000                                                                                      | 0.000              | 42.335        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                          | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.000              | 0.000          | 0.000          | 16.264                                                                | 0.000              | 16.264               | 21.283                 | 4.788          | 0.000          | 0.000                                                                                      | 0.000              | 42.335        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                          | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>16.264</b>                                                         | <b>0.000</b>       | <b>16.264</b>        | <b>21.283</b>          | <b>4.788</b>   | <b>0.000</b>   | <b>0.000</b>                                                                               | <b>0.000</b>       | <b>42.335</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                            |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                          | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                          | -                  | -             |
| <p><b>Description:</b><br/>Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components on SSGN class submarines.</p> <p>[SSGN TECHNOLOGY INSERTION KITS (SWFTS)] Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components on SSGN class submarines.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                            |                    |               |

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|---------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                 |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |                                           |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>8 / SA303 SSGN TECHNOLOGY<br>INSERTION KITS (SWFTS) |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                            |                                           |                                           |  |
| <b>Models of Systems Affected:</b> SSN                                          |                                           |                                           |                                           | <b>Modification Type:</b> SHIPALT         |                                                                       |                                           |                                           | <b>Related RDT&amp;E PEs:</b>             |                                           |                                                                                            |                                           |                                           |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                   | <b>FY 2019<br/>OCO</b>                                                | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                             | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                 | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                             | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> SA303 SSGN TECHNOLOGY INSERTION KITS (SWFTS)   |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| B Kits                                                                          |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| Non-Recurring                                                                   |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| 1.1.1) SSGN TECHNOLOGY INSERTION KITS (SWFTS) - NonOrganic                      | - / -                                     | - / -                                     | - / -                                     | 2 / 16.264                                | - / -                                                                 | 2 / 16.264                                | 2 / 16.589                                | - / -                                     | - / -                                     | - / -                                                                                      | - / -                                     | 4 / 32.853                                |  |
| <i>Subtotal: Non-Recurring</i>                                                  | - / 0.000                                 | - / -                                     | - / -                                     | - / 16.264                                | - / -                                                                 | - / 16.264                                | - / 16.589                                | - / -                                     | - / -                                     | - / -                                                                                      | - / 0.000                                 | - / 32.853                                |  |
| <i>Subtotal: SA303 SSGN TECHNOLOGY INSERTION KITS (SWFTS)</i>                   | - / -                                     | - / -                                     | - / -                                     | 2 / 16.264                                | - / -                                                                 | 2 / 16.264                                | 2 / 16.589                                | - / -                                     | - / -                                     | - / -                                                                                      | - / -                                     | 4 / 32.853                                |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                                 | - / -                                     | - / -                                     | - / 16.264                                | - / -                                                                 | - / 16.264                                | - / 16.589                                | - / -                                     | - / -                                     | - / -                                                                                      | - / 0.000                                 | - / 32.853                                |  |
| <b>Installation</b>                                                             |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> SA303 SSGN TECHNOLOGY INSERTION KITS (SWFTS)   | - / 0.000                                 | - / 0.000                                 | - / 0.000                                 | - / 0.000                                 | - / 0.000                                                             | - / 0.000                                 | - / 4.694                                 | - / 4.788                                 | - / 0.000                                 | - / 0.000                                                                                  | - / 0.000                                 | - / 9.482                                 |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                                 | - / -                                     | - / -                                     | - / -                                     | - / -                                                                 | - / -                                     | - / 4.694                                 | - / 4.788                                 | - / -                                     | - / -                                                                                      | - / 0.000                                 | - / 9.482                                 |  |
| <b>Total</b>                                                                    |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>16.264</b>                             | <b>0.000</b>                                                          | <b>16.264</b>                             | <b>21.283</b>                             | <b>4.788</b>                              | <b>0.000</b>                              | <b>0.000</b>                                                                               | <b>0.000</b>                              | <b>42.335</b>                             |  |
|                                                                                 |                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |



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|------------------------------------------------------------------------------------------------------|------------|-----------------------------------|-----------------------------------|-----------|-----------------------------------|----------------|-----------------------------------|-----------|-----------------------------------|-----------------------------------------------------------------------|-----------------------------------|-----------|-----------------------------------|----------------|-------------------------------------|-----------|-----------------------------------|----------------|-----------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------|----------------|--------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                           |            |                                   |                                   |           |                                   |                |                                   |           |                                   | <b>Date:</b> February 2018                                            |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                      |            |                                   |                                   |           |                                   |                |                                   |           |                                   | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                   |           |                                   |                |                                     |           |                                   |                |                                   | <b>Modification Number / Title:</b><br>8 / SA303 SSGN TECHNOLOGY<br>INSERTION KITS (SWFTS) |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                              |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                | <b>MDAP/MAIS Code:</b>              |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA303 SSGN TECHNOLOGY INSERTION KITS (SWFTS)                        |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                      |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                   |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                | Manufacturer Location: VA           |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                               |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                | Production Leadtime (in Months): 12 |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                         |            | <b>FY 2017</b>                    |                                   |           |                                   | <b>FY 2018</b> |                                   |           |                                   | <b>FY 2019</b>                                                        |                                   |           |                                   | <b>FY 2020</b> |                                     |           |                                   | <b>FY 2021</b> |                                   |                                                                                            |                                   | <b>FY 2022</b> |              |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                       |            |                                   |                                   |           |                                   | Apr 2019       |                                   |           |                                   | Apr 2020                                                              |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                       |            |                                   |                                   |           |                                   | Apr 2020       |                                   |           |                                   | Apr 2021                                                              |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                      |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SSGN TECHNOLOGY INSERTION KITS (SWFTS) |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                             |            | <b>Prior Years</b>                | <b>FY 2017</b>                    |           | <b>FY 2018</b>                    |                | <b>FY 2019 Base</b>               |           | <b>FY 2019 OCO</b>                |                                                                       | <b>FY 2019 Total</b>              |           | <b>FY 2020</b>                    |                | <b>FY 2021</b>                      |           | <b>FY 2022</b>                    |                | <b>FY 2023</b>                    |                                                                                            | <b>To Complete</b>                |                | <b>Total</b> |           |           |                |           |           |           |           |            |
|                                                                                                      |            | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |           | Qty (Each) /<br>Total Cost (\$ M) |                | Qty (Each) /<br>Total Cost (\$ M) |           | Qty (Each) /<br>Total Cost (\$ M) |                                                                       | Qty (Each) /<br>Total Cost (\$ M) |           | Qty (Each) /<br>Total Cost (\$ M) |                | Qty (Each) /<br>Total Cost (\$ M)   |           | Qty (Each) /<br>Total Cost (\$ M) |                | Qty (Each) /<br>Total Cost (\$ M) |                                                                                            | Qty (Each) /<br>Total Cost (\$ M) |                |              |           |           |                |           |           |           |           |            |
| Prior Years                                                                                          |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| FY 2017                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| FY 2018                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| FY 2019                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | 2 / 4.694      | -                                   | /         | -                                 | -              | /                                 | -                                                                                          | -                                 | /              | -            | 0 / 0.000 | 2 / 4.694 |                |           |           |           |           |            |
| FY 2020                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | 2 / 4.788                         | -              | /                                 | -                                                                                          | -                                 | /              | -            | 0 / 0.000 | 2 / 4.788 |                |           |           |           |           |            |
| FY 2021                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| FY 2022                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| FY 2023                                                                                              |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| To Complete                                                                                          |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | -              | /                                   | -         | -                                 | /              | -                                 | -                                                                                          | /                                 | -              | -            | /         | -         |                |           |           |           |           |            |
| Total                                                                                                |            | -                                 | /                                 | -         | -                                 | /              | -                                 | -         | /                                 | -                                                                     | -                                 | /         | -                                 | 2 / 4.694      | 2 / 4.788                           | -         | /                                 | -              | -                                 | /                                                                                          | -                                 | -              | /            | -         | 0 / 0.000 | 4 / 9.482      |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                         |            |                                   |                                   |           |                                   |                |                                   |           |                                   |                                                                       |                                   |           |                                   |                |                                     |           |                                   |                |                                   |                                                                                            |                                   |                |              |           |           |                |           |           |           |           |            |
|                                                                                                      | <b>PYS</b> | <b>FY 2017</b>                    |                                   |           |                                   | <b>FY 2018</b> |                                   |           |                                   | <b>FY 2019</b>                                                        |                                   |           |                                   | <b>FY 2020</b> |                                     |           |                                   | <b>FY 2021</b> |                                   |                                                                                            |                                   | <b>FY 2022</b> |              |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                      |            | <b>Q1</b>                         | <b>Q2</b>                         | <b>Q3</b> | <b>Q4</b>                         | <b>Q1</b>      | <b>Q2</b>                         | <b>Q3</b> | <b>Q4</b>                         | <b>Q1</b>                                                             | <b>Q2</b>                         | <b>Q3</b> | <b>Q4</b>                         | <b>Q1</b>      | <b>Q2</b>                           | <b>Q3</b> | <b>Q4</b>                         | <b>Q1</b>      | <b>Q2</b>                         | <b>Q3</b>                                                                                  | <b>Q4</b>                         | <b>Q1</b>      | <b>Q2</b>    | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                   | -          | -                                 | -                                 | -         | -                                 | -              | -                                 | -         | -                                 | -                                                                     | -                                 | -         | -                                 | -              | -                                   | 2         | -                                 | -              | -                                 | 2                                                                                          | -                                 | -              | -            | -         | -         | -              | -         | -         | -         | -         | 4          |
| Out                                                                                                  | -          | -                                 | -                                 | -         | -                                 | -              | -                                 | -         | -                                 | -                                                                     | -                                 | -         | -                                 | -              | -                                   | 2         | -                                 | -              | -                                 | 2                                                                                          | -                                 | -              | -            | -         | -         | -              | -         | -         | -         | -         | 4          |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|---------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                            |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                  |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                       |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>9 / SA303 SSN 21 TECHNICAL<br>INSERTION KITS (SWFTS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                               |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                             |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                               | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                              | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                         | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                    | 0.000              | 12.037         | 12.278         | 3.415                                                                 | 0.000              | 3.415                | 0.000                  | 0.000          | 9.666          | 13.555                                                                                      | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                 | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                       | 0.000              | 12.037         | 12.278         | 3.415                                                                 | 0.000              | 3.415                | 0.000                  | 0.000          | 9.666          | 13.555                                                                                      | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                 | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                           | <b>0.000</b>       | <b>12.037</b>  | <b>12.278</b>  | <b>3.415</b>                                                          | <b>0.000</b>       | <b>3.415</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>9.666</b>   | <b>13.555</b>                                                                               | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                         |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                             |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                              | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -                 |
| <p><b>Description:</b><br/> Inserts Tech Insertions onto Seawolf Class Submarines.</p> <p>[SA303 SSN 21 TECHNICAL INSERTION KITS (SWFTS)] Provides Tech Insertions onto Seawolf Class Submarines.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                             |                    |                   |

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|-------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                          |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                  |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2     |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>9 / SA303 SSN 21 TECHNICAL<br>INSERTION KITS (SWFTS) |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                             |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                             |                                           |                                           |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                    |                                           |                                           |                                           | <b>Modification Type:</b> SHIPALT                                     |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b>             |                                           |                                                                                             |                                           |                                           |  |
| <b>Financial Plan</b>                                                               | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                               | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                              | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                     | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                             | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                   | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                  |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> SA303 SSN 21 TECHNICAL<br>INSERTION KITS (SWFTS)   |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |
| B Kits                                                                              |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |
| Recurring                                                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |
| 1.1.1) SA303 SSN 21 TECHNICAL INSERTION KITS<br>(SWFTS) - NonOrganic <sup>(9)</sup> | 1 / 0.000                                 | 1 / 8.755                                 | 1 / 8.930                                 | - / -                                                                 | - / -                                     | - / -                                     | - / -                                     | - / -                                     | 1 / 9.666                                 | 1 / 9.859                                                                                   | Continuing                                | Continuing                                |  |
| <i>Subtotal: Recurring</i>                                                          | <i>- / 0.000</i>                          | <i>- / 8.755</i>                          | <i>- / 8.930</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / 9.666</i>                          | <i>- / 9.859</i>                                                                            | <i>Continuing</i>                         | <i>Continuing</i>                         |  |
| <i>Subtotal: SA303 SSN 21 TECHNICAL INSERTION<br/>KITS (SWFTS)</i>                  | <i>1 / 0.000</i>                          | <i>1 / 8.755</i>                          | <i>1 / 8.930</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>1 / 9.666</i>                          | <i>1 / 9.859</i>                                                                            | <i>Continuing</i>                         | <i>Continuing</i>                         |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                | <i>- / 0.000</i>                          | <i>- / 8.755</i>                          | <i>- / 8.930</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / 9.666</i>                          | <i>- / 9.859</i>                                                                            | <i>Continuing</i>                         | <i>Continuing</i>                         |  |
| <b>Installation</b>                                                                 |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> SA303 SSN 21 TECHNICAL<br>INSERTION KITS (SWFTS)   | <i>- / 0.000</i>                          | <i>- / 3.282</i>                          | <i>- / 3.348</i>                          | <i>- / 3.415</i>                                                      | <i>- / 0.000</i>                          | <i>- / 3.415</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 3.696</i>                                                                            | <i>Continuing</i>                         | <i>Continuing</i>                         |  |
| <i>Subtotal: Installation</i>                                                       | <i>- / 0.000</i>                          | <i>- / 3.282</i>                          | <i>- / 3.348</i>                          | <i>- / 3.415</i>                                                      | <i>- / -</i>                              | <i>- / 3.415</i>                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / 3.696</i>                                                                            | <i>Continuing</i>                         | <i>Continuing</i>                         |  |
| <b>Total</b>                                                                        |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                            | <b>0.000</b>                              | <b>12.037</b>                             | <b>12.278</b>                             | <b>3.415</b>                                                          | <b>0.000</b>                              | <b>3.415</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>9.666</b>                              | <b>13.555</b>                                                                               | <b>Continuing</b>                         | <b>Continuing</b>                         |  |
|                                                                                     |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                             |                                           |                                           |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>9 / SA303 SSN 21 TECHNICAL<br>INSERTION KITS (SWFTS) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA303 SSN 21 TECHNICAL INSERTION KITS (SWFTS)                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Manufacturer Location: VA           |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                | Production Leadtime (in Months): 12 |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                         |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                             |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                       |            | Apr 2017                       |           |                                |           | Apr 2018                       |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           | Apr 2022                       |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                       |            | Apr 2018                       |           |                                |           | Apr 2019                       |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           | Apr 2023                       |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA303 SSN 21 TECHNICAL INSERTION KITS (SWFTS)                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                             |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                    |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                              |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                      |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                        |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                              |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                          |            | - / -                          |           | 1 / 3.282                      |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | 0 / 0.000                      |           | 1 / 3.282      |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | 1 / 3.348                      |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | 0 / 0.000                      |           | 1 / 3.348      |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 3.415                      |           | 0 / 0.000                                                             |           | 1 / 3.415                      |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | 0 / 0.000                      |           | 1 / 3.415      |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | 1 / 3.696                      |           | 0 / 0.000      |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           | 1 / 3.770      |           |           |           |           |            |
| To Complete                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           | Continuing     |           |           |           |           |            |
| Total                                                                                                                                                                                                                |            | - / -                          |           | 1 / 3.282                      |           | 1 / 3.348                      |           | 1 / 3.415                      |           | 0 / 0.000                                                             |           | 1 / 3.415                      |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | 1 / 3.696                      |           | Continuing     |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                      | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                             |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                      |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                             | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                   | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                   | -          | -                              | -         | 1                              | -         | -                              | -         | -                              | 1         | -                                                                     | -         | -                              | -         | 1                              | -                                   | -                              | -         | -                              | -         | -                                                                                           | -         | -                              | -         | -                              | -         | -              | -         | 1         | -         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                  | -          | -                              | -         | 1                              | -         | -                              | -         | -                              | 1         | -                                                                     | -         | -                              | -         | 1                              | -                                   | -                              | -         | -                              | -         | -                                                                                           | -         | -                              | -         | -                              | -         | -              | -         | 1         | -         | Cont.     | Cont.      |
| <b>Footnotes:</b><br><sup>(9)</sup> FY17 installation reflected in this BLI 2150 exhibit utilizes equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17. |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------|--|----------------------------|--|-----------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                       |  | <b>Date:</b> February 2018 |  |                                                                                                                       |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |  |                            |  | <b>Modification Number / Title:</b><br>10 / SA303 VIRGINIA CLASS<br>TECHNICAL INSERTION W/<br>CONVERSION KITS (SWFTS) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 0.000       | 16.957  | 3.348   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 20.305 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 0.000       | 16.957  | 3.348   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 20.305 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 0.000       | 16.957  | 3.348   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 20.305 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Provides initial technology insertion upgrade for A-RCI installed systems on the VA Class, providing the latest and most current capability.

[SA303 VIRGINIA CLASS TECHNICAL INSERTION W/CONVERSION KITS (SWFTS)] Provides initial technology insertion upgrade for A-RCI installed systems on the VA Class, providing the latest and most current capability.

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|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                                            |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                      |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>10 / SA303 VIRGINIA CLASS<br>TECHNICAL INSERTION W/<br>CONVERSION KITS (SWFTS) |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                              |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                                                       |                                           |                                           |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                                                     |                                           |                                           |                                           | <b>Modification Type:</b> SHIPALT                                     |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b>             |                                           |                                                                                                                       |                                           |                                           |  |
| <b>Financial Plan</b>                                                                                                | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                               | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                                                        | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                                                      | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                             | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                                             | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                                   |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                                       |                                           |                                           |  |
| <i><b>Modification Item 1 of 1:</b> SA303 VIRGINIA CLASS<br/>TECHNICAL INSERTION W/CONVERSION KITS<br/>(SWFTS)</i>   |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                                       |                                           |                                           |  |
| <i>B Kits</i>                                                                                                        |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                                       |                                           |                                           |  |
| <i>Recurring</i>                                                                                                     |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                                       |                                           |                                           |  |
| <i>1.1.1) SA303 VIRGINIA CLASS TECHNICAL<br/>INSERTION W/CONVERSION KITS (SWFTS) -<br/>NonOrganic<sup>(10)</sup></i> | <i>1 / 0.000</i>                          | <i>1 / 13.675</i>                         | <i>- / -</i>                              | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                                          | <i>- / -</i>                              | <i>2 / 13.675</i>                         |  |
| <i>Subtotal: Recurring</i>                                                                                           | <i>- / 0.000</i>                          | <i>- / 13.675</i>                         | <i>- / -</i>                              | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                                          | <i>- / 0.000</i>                          | <i>- / 13.675</i>                         |  |
| <i>Subtotal: SA303 VIRGINIA CLASS TECHNICAL<br/>INSERTION W/CONVERSION KITS (SWFTS)</i>                              | <i>1 / 0.000</i>                          | <i>1 / 13.675</i>                         | <i>- / -</i>                              | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                                          | <i>- / -</i>                              | <i>2 / 13.675</i>                         |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                                 | <i>- / 0.000</i>                          | <i>- / 13.675</i>                         | <i>- / -</i>                              | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                                          | <i>- / 0.000</i>                          | <i>- / 13.675</i>                         |  |
| <b>Installation</b>                                                                                                  |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                                       |                                           |                                           |  |
| <i><b>Modification Item 1 of 1:</b> SA303 VIRGINIA CLASS<br/>TECHNICAL INSERTION W/CONVERSION KITS<br/>(SWFTS)</i>   | <i>- / 0.000</i>                          | <i>- / 3.282</i>                          | <i>- / 3.348</i>                          | <i>- / 0.000</i>                                                      | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                                                                                                      | <i>- / 0.000</i>                          | <i>- / 6.630</i>                          |  |
| <i>Subtotal: Installation</i>                                                                                        | <i>- / 0.000</i>                          | <i>- / 3.282</i>                          | <i>- / 3.348</i>                          | <i>- / -</i>                                                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                                          | <i>- / 0.000</i>                          | <i>- / 6.630</i>                          |  |
| <b>Total</b>                                                                                                         |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                                       |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                             | <b>0.000</b>                              | <b>16.957</b>                             | <b>3.348</b>                              | <b>0.000</b>                                                          | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                                                                                                          | <b>0.000</b>                              | <b>20.305</b>                             |  |

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|---------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                       | <b>Date:</b> February 2018                                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment | <b>Modification Number / Title:</b><br>10 / SA303 VIRGINIA CLASS<br>TECHNICAL INSERTION W/<br>CONVERSION KITS (SWFTS) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** SA303 VIRGINIA CLASS TECHNICAL INSERTION W/CONVERSION KITS (SWFTS)

**Manufacturer Information**

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| Manufacturer Name: Lockheed Martin     | Manufacturer Location: Syracuse, NY |
| Administrative Leadtime (in Months): 3 | Production Leadtime (in Months): 12 |

| Dates          | FY 2017  | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|---------|---------|---------|---------|---------|---------|
| Contract Dates | Apr 2017 |         |         |         |         |         |         |
| Delivery Dates | Apr 2018 |         |         |         |         |         |         |

**Installation Information**

**Method of Implementation:** SHIPALT:: Installation Name: SA303 VIRGINIA CLASS TECHNICAL INSERTION W/CONVERSION KITS (SWFTS)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 1 / 3.282                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 3.282                      |
| FY 2017           | - / -                          | - / -                          | 1 / 3.348                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 3.348                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 1 / 3.282                      | 1 / 3.348                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 6.630                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | 1  | -  | -       | -  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 2   |
| Out | -   | -       | -  | 1  | -  | -       | -  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 2   |

**Footnotes:**  
<sup>(10)</sup> FY17 installation reflected in this BLI 2150 exhibit utilizes equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17.

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|------------------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                           |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                                                                                                                                                                                        |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>11 / SA303 VIRGINIA CLASS<br>TECHNICAL INSERTION KITS (SWFTS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                      |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                       | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -                 |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                       | 0.000              | 55.810         | 47.011         | 10.245                                                                | 0.000              | 10.245               | 27.872                 | 133.851        | 85.775         | 34.504                                                                                               | Continuing         | Continuing        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -                 |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                          | 0.000              | 55.810         | 47.011         | 10.245                                                                | 0.000              | 10.245               | 27.872                 | 133.851        | 85.775         | 34.504                                                                                               | Continuing         | Continuing        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -                 |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                                                                                              | <b>0.000</b>       | <b>55.810</b>  | <b>47.011</b>  | <b>10.245</b>                                                         | <b>0.000</b>       | <b>10.245</b>        | <b>27.872</b>          | <b>133.851</b> | <b>85.775</b>  | <b>34.504</b>                                                                                        | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                          |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                                      |                    |                   |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -                 |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -                 |
| <p><b>Description:</b><br/> Provides technology insertion upgrade kits to previously A-RCI installed systems on the VA Class, providing the latest and most current capability.</p> <p>[SA303 VIRGINIA CLASS TECHNICAL INSERTION KITS (SWFTS)] Provides technology insertion upgrade kits to previously A-RCI installed systems on the VA Class, providing the latest and most current capability.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                                      |                    |                   |



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|---------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                        |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                           |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                   |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>11 / SA303 VIRGINIA CLASS<br>TECHNICAL INSERTION KITS (SWFTS) |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                           |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                                      |                                           |                                           |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                                  |                                           |                                           |                                           | <b>Modification Type:</b> SHIPALT                                     |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b>             |                                           |                                                                                                      |                                           |                                           |  |
| <b>Financial Plan</b>                                                                             | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                               | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                                       | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                                   | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                             | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                            | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <i><b>Modification Item 1 of 1:</b> SA303 VIRGINIA CLASS<br/>TECHNICAL INSERTION KITS (SWFTS)</i> |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <i>B Kits</i>                                                                                     |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <i>Recurring</i>                                                                                  |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| 1.1.1) SA303 VIRGINIA CLASS TECHNICAL<br>INSERTION KITS (SWFTS) - NonOrganic <sup>(11)</sup>      | 1 / 0.000                                 | 6 / 52.528                                | 3 / 26.789                                | - / -                                                                 | - / -                                     | - / -                                     | 3 / 27.872                                | 13 / 123.192                              | 4 / 38.663                                | 2 / 19.718                                                                                           | Continuing                                | Continuing                                |  |
| <i>Subtotal: Recurring</i>                                                                        | - / 0.000                                 | - / 52.528                                | - / 26.789                                | - / -                                                                 | - / -                                     | - / -                                     | - / 27.872                                | - / 123.192                               | - / 38.663                                | - / 19.718                                                                                           | Continuing                                | Continuing                                |  |
| <i>Subtotal: SA303 VIRGINIA CLASS TECHNICAL<br/>INSERTION KITS (SWFTS)</i>                        | 1 / 0.000                                 | 6 / 52.528                                | 3 / 26.789                                | - / -                                                                 | - / -                                     | - / -                                     | 3 / 27.872                                | 13 / 123.192                              | 4 / 38.663                                | 2 / 19.718                                                                                           | Continuing                                | Continuing                                |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                              | - / 0.000                                 | - / 52.528                                | - / 26.789                                | - / -                                                                 | - / -                                     | - / -                                     | - / 27.872                                | - / 123.192                               | - / 38.663                                | - / 19.718                                                                                           | Continuing                                | Continuing                                |  |
| <b>Installation</b>                                                                               |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <i><b>Modification Item 1 of 1:</b> SA303 VIRGINIA CLASS<br/>TECHNICAL INSERTION KITS (SWFTS)</i> | - / 0.000                                 | - / 3.282                                 | - / 20.222                                | - / 10.245                                                            | - / 0.000                                 | - / 10.245                                | - / 0.000                                 | - / 10.659                                | - / 47.112                                | - / 14.786                                                                                           | Continuing                                | Continuing                                |  |
| <i>Subtotal: Installation</i>                                                                     | - / 0.000                                 | - / 3.282                                 | - / 20.222                                | - / 10.245                                                            | - / -                                     | - / 10.245                                | - / -                                     | - / 10.659                                | - / 47.112                                | - / 14.786                                                                                           | Continuing                                | Continuing                                |  |
| <b>Total</b>                                                                                      |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                          | <b>0.000</b>                              | <b>55.810</b>                             | <b>47.011</b>                             | <b>10.245</b>                                                         | <b>0.000</b>                              | <b>10.245</b>                             | <b>27.872</b>                             | <b>133.851</b>                            | <b>85.775</b>                             | <b>34.504</b>                                                                                        | <b>Continuing</b>                         | <b>Continuing</b>                         |  |
|                                                                                                   |                                           |                                           |                                           |                                                                       |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |

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|                                                                                                                                                                                                  |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                       |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                  |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>11 / SA303 VIRGINIA CLASS<br>TECHNICAL INSERTION KITS (SWFTS) |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                          |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                                                               |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA303 VIRGINIA CLASS TECHNICAL INSERTION KITS (SWFTS)                                                                                                           |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                  |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                                                                                                               |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                | Manufacturer Location: VA                                                                            |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                           |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                | Production Leadtime (in Months): 12                                                                  |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                        | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                   | Apr 2017                       | Apr 2018                       |                                | Apr 2020                       | Apr 2021                                                              | Apr 2022                       | Apr 2023                       |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                   | Apr 2018                       | Apr 2019                       |                                | Apr 2021                       | Apr 2022                                                              | Apr 2023                       | Apr 2024                       |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                  |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA303 VIRGINIA CLASS TECHNICAL INSERTION KITS (SWFTS)                                                                              |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                    | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                       | <b>To Complete</b>             | <b>Total</b>                   |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                      | - / -                          | 1 / 3.282                      | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                | 0 / 0.000                      | 1 / 3.282                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                          | - / -                          | - / -                          | 6 / 20.222                     | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                | 0 / 0.000                      | 6 / 20.222                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                          | - / -                          | - / -                          | - / -                          | 3 / 10.245                     | 0 / 0.000                                                             | 3 / 10.245                     | - / -                          | - / -                          | - / -                          | - / -                                                                                                | 0 / 0.000                      | 3 / 10.245                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                | - / -                          | - / -                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | 3 / 10.659                     | - / -                          | - / -                                                                                                | 0 / 0.000                      | 3 / 10.659                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | 13 / 47.112                    | - / -                                                                                                | 0 / 0.000                      | 13 / 47.112                    |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | 4 / 14.786                                                                                           | 0 / 0.000                      | 4 / 14.786                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                | 2 / 7.541                      | 2 / 7.541                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                | Continuing                     | Continuing                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                            | - / -                          | 1 / 3.282                      | 6 / 20.222                     | 3 / 10.245                     | 0 / 0.000                                                             | 3 / 10.245                     | - / -                          | 3 / 10.659                     | 13 / 47.112                    | 4 / 14.786                                                                                           | Continuing                     | Continuing                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                     |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                  | <b>PYS</b>                     | <b>FY 2017</b>                 |                                |                                |                                                                       | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                                                       |                                |                                |           | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                  |                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                             | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                                                            | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                               | -                              | -                              | -                              | 1                              | -                                                                     | 2                              | 2                              | 2                              | -                              | -                                                                                                    | -                              | 3                              | -         | -              | -         | -         | -         | -              | -         | -         | 3         | 3              | 4         | 4         | 2         | -              | -         | 2         | 2         | Cont.     | Cont.      |
| Out                                                                                                                                                                                              | -                              | -                              | -                              | 1                              | -                                                                     | -                              | 2                              | 2                              | 2                              | -                                                                                                    | -                              | 3                              | -         | -              | -         | -         | -         | -              | -         | -         | 3         | 3              | 4         | 4         | 2         | -              | -         | 2         | 2         | Cont.     | Cont.      |
| <b>Footnotes:</b>                                                                                                                                                                                |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <sup>(11)</sup> FY17 installations reflected in this BLI 2150 exhibit utilize equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17. |                                |                                |                                |                                |                                                                       |                                |                                |                                |                                |                                                                                                      |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                    |                    |                |                |                                                                       |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                       |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                                                               |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>12 / SA303 SSBN TECHNICAL<br>INSERTION CONVERSION (SWFTS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                       |                    |                |                |                                                                       |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                  |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                   | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                   | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                 | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                            | 0.000              | 24.008         | 28.667         | 23.757                                                                | 0.000              | 23.757               | 25.478                 | 19.010         | 27.803         | 42.202                                                                                           | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                         | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                               | 0.000              | 24.008         | 28.667         | 23.757                                                                | 0.000              | 23.757               | 25.478                 | 19.010         | 27.803         | 42.202                                                                                           | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                         | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                   | <b>0.000</b>       | <b>24.008</b>  | <b>28.667</b>  | <b>23.757</b>                                                         | <b>0.000</b>       | <b>23.757</b>        | <b>25.478</b>          | <b>19.010</b>  | <b>27.803</b>  | <b>42.202</b>                                                                                    | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                 |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                                  |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                      | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                        | -                  | -              | -              | -                                                                     | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -                 |
| <p><b>Description:</b><br/>Provides sonar modernization to the SSBN (TRIDENT) Class Submarine Fleet.</p> <p>[SA303 SSBN TECHNICAL INSERTION CONVERSION (SWFTS)] Provides sonar modernization to the SSBN (TRIDENT) Class Submarine Fleet.</p> |                    |                |                |                                                                       |                    |                      |                        |                |                |                                                                                                  |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                               |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   | <b>Date:</b> February 2018                                                                       |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2          |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |                                   |                                   |                                   |                                   |                                   | <b>Modification Number / Title:</b><br>12 / SA303 SSBN TECHNICAL<br>INSERTION CONVERSION (SWFTS) |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                  |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                   |                                                                                                  |                                   |                                   |  |
| <b>Models of Systems Affected:</b> SSN ACOUSTICS                                         |                                   |                                   |                                   | <b>Modification Type:</b> SHIPALT                                     |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b>     |                                   |                                                                                                  |                                   |                                   |  |
| <b>Financial Plan</b>                                                                    | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019<br/>Base</b>                                               | <b>FY 2019<br/>OCO</b>            | <b>FY 2019<br/>Total</b>          | <b>FY 2020</b>                    | <b>FY 2021</b>                    | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                                   | <b>To<br/>Complete</b>            | <b>Total</b>                      |  |
|                                                                                          | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                     | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                                | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                       |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |
| <i>Modification Item 1 of 1:</i> SA303 SSBN TECHNICAL<br>INSERTION CONVERSION (SWFTS)    |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |
| B Kits                                                                                   |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |
| Non-Recurring                                                                            |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |
| 1.1.1) SA303 SSBN TECHNICAL INSERTION<br>CONVERSION (SWFTS) - NonOrganic <sup>(12)</sup> | 2 / 0.000                         | 3 / 15.814                        | 3 / 16.130                        | 2 / 10.969                                                            | - / -                             | 2 / 10.969                        | 3 / 16.782                        | 1 / 5.706                         | 4 / 23.280                        | 4 / 23.746                                                                                       | Continuing                        | Continuing                        |  |
| <i>Subtotal: Non-Recurring</i>                                                           | - / 0.000                         | - / 15.814                        | - / 16.130                        | - / 10.969                                                            | - / -                             | - / 10.969                        | - / 16.782                        | - / 5.706                         | - / 23.280                        | - / 23.746                                                                                       | Continuing                        | Continuing                        |  |
| <i>Subtotal: SA303 SSBN TECHNICAL INSERTION<br/>CONVERSION (SWFTS)</i>                   | 2 / 0.000                         | 3 / 15.814                        | 3 / 16.130                        | 2 / 10.969                                                            | - / -                             | 2 / 10.969                        | 3 / 16.782                        | 1 / 5.706                         | 4 / 23.280                        | 4 / 23.746                                                                                       | Continuing                        | Continuing                        |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                     | - / 0.000                         | - / 15.814                        | - / 16.130                        | - / 10.969                                                            | - / -                             | - / 10.969                        | - / 16.782                        | - / 5.706                         | - / 23.280                        | - / 23.746                                                                                       | Continuing                        | Continuing                        |  |
| <b>Installation</b>                                                                      |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |
| <i>Modification Item 1 of 1:</i> SA303 SSBN TECHNICAL<br>INSERTION CONVERSION (SWFTS)    | - / 0.000                         | - / 8.194                         | - / 12.537                        | - / 12.788                                                            | - / 0.000                         | - / 12.788                        | - / 8.696                         | - / 13.304                        | - / 4.523                         | - / 18.456                                                                                       | Continuing                        | Continuing                        |  |
| <i>Subtotal: Installation</i>                                                            | - / 0.000                         | - / 8.194                         | - / 12.537                        | - / 12.788                                                            | - / -                             | - / 12.788                        | - / 8.696                         | - / 13.304                        | - / 4.523                         | - / 18.456                                                                                       | Continuing                        | Continuing                        |  |
| <b>Total</b>                                                                             |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                 | <b>0.000</b>                      | <b>24.008</b>                     | <b>28.667</b>                     | <b>23.757</b>                                                         | <b>0.000</b>                      | <b>23.757</b>                     | <b>25.478</b>                     | <b>19.010</b>                     | <b>27.803</b>                     | <b>42.202</b>                                                                                    | <b>Continuing</b>                 | <b>Continuing</b>                 |  |
|                                                                                          |                                   |                                   |                                   |                                                                       |                                   |                                   |                                   |                                   |                                   |                                                                                                  |                                   |                                   |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           | <b>Date:</b> February 2018     |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2150 / SSN Acoustic Equipment |           |                                |                                     |                                |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>12 / SA303 SSBN TECHNICAL<br>INSERTION CONVERSION (SWFTS) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     | <b>MDAP/MAIS Code:</b>         |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SA303 SSBN TECHNICAL INSERTION CONVERSION (SWFTS)                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                | Manufacturer Location: Manassas, VA |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                | Production Leadtime (in Months): 12 |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                     |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |                                     | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                                                  |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                   |            | Apr 2017                       |           |                                |           | Apr 2018                       |           |                                |           | Apr 2019                                                              |           |                                |                                     | Apr 2020                       |           |                                |           | Apr 2021                       |           |                                                                                                  |           | Apr 2022                       |           |                                |           | Apr 2023       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                   |            | Apr 2018                       |           |                                |           | Apr 2019                       |           |                                |           | Apr 2020                                                              |           |                                |                                     | Apr 2021                       |           |                                |           | Apr 2022                       |           |                                                                                                  |           | Apr 2023                       |           |                                |           | Apr 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT:: Installation Name: SA303 SSBN TECHNICAL INSERTION CONVERSION (SWFTS)                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                         |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                    |           | <b>FY 2019 Total</b>           |                                     | <b>FY 2020</b>                 |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                   |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                  |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                        |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                      |            | - / -                          |           | 2 / 8.194                      |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 2 / 8.194                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | 3 / 12.537                     |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 3 / 12.537                     |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | 3 / 12.788                     |           | 0 / 0.000                                                             |           | 3 / 12.788                     |                                     | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 3 / 12.788                     |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | 2 / 8.696                      |           | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 2 / 8.696                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | 3 / 13.304                     |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 3 / 13.304                     |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | - / -                          |           | 1 / 4.523                      |           | - / -                                                                                            |           | 0 / 0.000                      |           | 1 / 4.523                      |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                          |           | 4 / 18.456                                                                                       |           | 0 / 0.000                      |           | 4 / 18.456                     |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 4 / 18.825                     |           | 4 / 18.825                     |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                 |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                            |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                            |            | - / -                          |           | 2 / 8.194                      |           | 3 / 12.537                     |           | 3 / 12.788                     |           | 0 / 0.000                                                             |           | 3 / 12.788                     |                                     | 2 / 8.696                      |           | 3 / 13.304                     |           | 1 / 4.523                      |           | 4 / 18.456                                                                                       |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                  | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                        |           |                                |                                     | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                                                  |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                  |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                             | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b>                           | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                        | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                               | -          | -                              | -         | 2                              | -         | -                              | -         | 3                              | -         | -                                                                     | -         | 2                              | 1                                   | -                              | -         | 2                              | -         | -                              | -         | 2                                                                                                | 1         | -                              | -         | 1                              | -         | -              | -         | 2         | 2         | Cont.     | Cont.      |
| Out                                                                                                                                                                                              | -          | -                              | -         | 2                              | -         | -                              | -         | 3                              | -         | -                                                                     | -         | 2                              | 1                                   | -                              | -         | 2                              | -         | -                              | -         | 2                                                                                                | 1         | -                              | -         | 1                              | -         | -              | -         | 2         | 2         | Cont.     | Cont.      |
| <b>Footnotes:</b>                                                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <sup>(12)</sup> FY17 installation reflected in this BLI 2150 exhibit utilizes equipment previously procured under BLI 2147 due to BLI 2147 and BLI 2181 merging into BLI 2150 beginning in FY17. |            |                                |           |                                |           |                                |           |                                |           |                                                                       |           |                                |                                     |                                |           |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                                               |                     |                    |                      |                                                                                   |                |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2176 / Undersea Warfare Support Equipment |                |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      | <b>Other Related Program Elements:</b> 0603512N, 0604518N                         |                |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                                               |                     |                    |                      |                                                                                   |                |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                    | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                 | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 98.656             | 7.163          | 13.653                                        | 10.134              | 0.000              | 10.134               | 9.008                                                                             | 10.339         | 11.854         | 14.999                     | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                 | -              | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 98.656             | 7.163          | 13.653                                        | 10.134              | 0.000              | 10.134               | 9.008                                                                             | 10.339         | 11.854         | 14.999                     | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                 | -              | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>98.656</b>      | <b>7.163</b>   | <b>13.653</b>                                 | <b>10.134</b>       | <b>0.000</b>       | <b>10.134</b>        | <b>9.008</b>                                                                      | <b>10.339</b>  | <b>11.854</b>  | <b>14.999</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                                               |                     |                    |                      |                                                                                   |                |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                 | -              | -              | -                          | -                  | -                 |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                 | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                 | -              | -              | -                          | -                  | -                 |
| <p><b>Description:</b></p> <p>The FY 2019 funding request was reduced by \$.068 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> <p>VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC):<br/> The AN/SQQ-34 Aircraft Carrier Tactical Support Center (CV-TSC) program provides increased situational awareness to the Carrier Strike Group (CSG) in support of force protection, primarily in the area of ASW. Through the integration of off-board sensors and signal, data and display processors, the AN/SQQ-34 is utilized in detecting, classifying, and localizing threats. An integrated element of the Carrier Combat System, the AN/SQQ-34 supports the tactical deployment of embarked ASW and Surface Warfare (SUW) assets. The program provides technical refreshes to legacy AN/SQQ-34 systems on all Carriers and shore sites in support of Fleet introduction and shipboard integration of the MH-60R Multi-Mission Helicopter. Upgrades to legacy systems will enable exchange of sensor, tactical and imagery data with the MH-60R initially and eventually with P-8 and Triton Unmanned Aircraft Systems (UAS) aircraft. It completes the Kill Chain by linking sensor platform to sensor controllers and the ASW/SUW commanders. In order to support multiple MH-60R Multi-Mission Helicopters, the Common Data Link (CDL) will also be upgraded. CDL is the Navy Aircraft Carrier ultra wide-band, digital, secure data link, comprised of radio equipment that provides configuration-controlled and standardized wide-band, digital, and secure communication paths between multiple reconnaissance sensors and their users. Initially, a single User Interface Group (UIG) upgrade to CDL will be fielded in concert with CV-TSC/MH-60R deployments, providing a single MH-60R/aircraft link.</p> <p>VM401 - SURFACE SONAR WINDOWS AND DOMES:<br/> AN/SQS-26/53 Sonar Dome Rubber Windows (SDRW) are installed on CG47 and DDG51 class ships. This program provides emergency replacement, wire-reinforced, pressurized rubber acoustic windows and attachment hardware, which experience failure due to corrosion, fatigue, and impact damage. The SDRW significantly improves the surface ship sonar performance by reducing flow-induced self-noise and by providing increased source level receiving and sensitivity resulting from reduced attenuation. This program provides production engineering in support of technical evaluations, failure analysis, implementation of the in-water one-side backscatter X-ray program, Government Furnished Equipment (GFE) refurbishments, and field service engineering; and complete engineering design work and material tests. This program also provides drawings, configuration management information, new design and fabrication technology, incorporation of lessons learned and required testing, and construct sub-element to confirm single-stage cure.</p> <p>VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)<br/> USW-DSS provides an integrated, near-real time, net-centric ASW Command and Control (C2) capability across multiple surface platforms and critical shore sites. USW-DSS provides a critical C2 capability for the Sea Combat, Theater USW (TUSW), and ASW Commanders, and enables the ability to plan and conduct USW operations, alignment of sensors for exploitation of the environment, allocation of resources,</p> |                    |                |                                               |                     |                    |                      |                                                                                   |                |                |                            |                    |                   |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        | Date: February 2018                                                        |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                        | P-1 Line Item Number / Title:<br>2176 / Undersea Warfare Support Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Program Elements for Code B Items: N/A | Other Related Program Elements: 0603512N, 0604518N                         |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |                                                                            |
| <p>optimization of operations and risk, and vulnerability assessment. It provides USW Commanders with an expanded net-centric USW capability across CSG platforms (CVNs, CG/DDGs, and Integrated Undersea Surveillance System (IUSS)) as well as supporting shore nodes to include Theater Surface Combatants (TSC), Training, Naval Oceanographic Processing Facility (NOPF), and Commander Task Force (CTF). This program procures and installs USW-DSS on CSG platforms and supporting shore nodes via permanent ship alterations (SHIPALTs). In FY 2009 USW-DSS transitioned to a software application hosted on the Integrated Shipboard Network System (ISNS) and in FY 2014 started installing as part of the Consolidated Afloat Network and Enterprise Services (CANES). Workstation procurements are required to support the ISNS and CANES configured ships as well as shore nodes. USW-DSS capability is phased to effectively deliver software improvements to the warfighter. The current software version, Build 2 Release 3 (B2R3), will continue to field until the follow-on Build 3 (B3) is fielded in FY 2019. In FY 2021, non-recurring engineering effort will begin to field Theater Anti-Submarine Warfare (ASW) upgrades to USW-DSS systems, with the integrated Common Operational Picture (COP), to shore nodes operating in the multi-level security environment.</p> <p>YEAR-TO-YEAR BUDGET CONTROL COMPARISON:<br/>- FY 2017 (\$7.163M) to FY 2018 (\$13.653M) increase (\$+6.490M) is driven by the requirement for improvements and tech refreshes of USW-DSS to avoid obsolescence and improve reliability and maintainability. The tech refresh includes all USW-DSS/UYQ-100 hardware Technical Insertion (TI)-08 baseline afloat and shore sites, including Surveillance Towed Array Sensor System (SURTASS) ships, Theater commands, support nodes, and Tactical Training Equipment (TTE).<br/>- FY 2018 (\$13.653M) to FY 2019 (\$10.134M) decrease (\$-3.519M) is driven by the reduced (as compared to FY 2018) requirement for the USW-DSS program's procurement of shore site, tactical trainer, and tech refresh upgrades in FY 2019.</p> <p>[P40A / VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC)]: VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC)</p> <p>[P40A / CV-TSC Technology Insert/Refresh &amp; ECP Implementation]: VM301 - CV-TSC Technology Insert/Refresh &amp; ECP Implementation: Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades to previously fielded and in-production AN/SQQ-34 systems. Funding used to implement ECPs to correct deficiencies identified through Fleet use; upgrade unreliable components; replace obsolete components; and address Information Assurance (IA) issues.</p> <p>[P40A / VM401 - SURFACE SONAR WINDOWS AND DOMES]: VM401 - SURFACE SONAR WINDOWS AND DOMES</p> <p>[P40A / Surface Sonar Windows and Domes]: VM401 - Surface Sonar Windows and Domes: Procure SDRWs, shipping fixtures, and fairing angles for emergency replacement on CG 47 and DDG 51 class hulls.</p> <p>[P40A / Production Support]: VM401 - SDRW Production Support: Funding is provided for production engineering in support of technical evaluations, failure analysis, implementation of the in-water one-side backscatter X-ray program, Government Furnished Equipment (GFE) refurbishments, and field service engineering; and complete engineering design work and material tests. This program also provides drawings, configuration management information, new design and fabrication technology, incorporation of lessons learned and required testing, and construct sub-element to confirm single-stage cure.</p> <p>[P40A / VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)]: VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)</p> <p>[P40A / Carrier Strike Group (CSG) Shipsets]: VM601 - USW-DSS/Carrier Strike Group (CSG) Shipsets: Consists of the complete USW-DSS (hardware, software, and support equipment).</p> <p>[P40A / Backfit To Post-OPEVAL]: VM601 - USW-DSS/Backfit To Post-OPEVAL: Consists of updates to existing USW-DSS Build 2 Release 3 systems in the Fleet with changes dictated by the FY 2013 OPEVAL of USW-DSS Build 2 Release 3.</p> <p>[P40A / ISNS to CANES S/W Shipsets]: VM601 - USW-DSS/ISNS/CANES S/W Shipsets: Consists of USW-DSS Build 2 Release 3 software load onto ISNS/CANES platforms. Include updates from ISNS to CANES as well as new CANES software and workstation suites. Schedule is dependent upon/coordinated with ISNS/CANES fielding.</p> <p>[P40A / Shore Sites and Tactical Trainers]: VM601 - USW-DSS/Shore Sites and Tactical Trainers: Consists of USW-DSS post-OPEVAL Build 2 Release 3 shore/lab assets and Tactical Training Equipment systems, which are full hardware/software suites. USW-DSS Build 3 will be loaded on all training and shore site nodes beginning in FY 2019.</p> |                                        |                                                                            |



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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        | Date: February 2018                                                        |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        | P-1 Line Item Number / Title:<br>2176 / Undersea Warfare Support Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Program Elements for Code B Items: N/A | Other Related Program Elements: 0603512N, 0604518N                         |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                        |                                                                            |
| <p>[P40A / USW-DSS Tech Refresh]: VM601 - USW-DSS Tech Refresh: Funding is for hardware/software technology upgrades to previously fielded USW-DSS/UYQ-100 hardware Technical Insertion (TI)-08 baseline afloat and shore sites, including Surveillance Towed Array Sensor System (SURTASS) ships, Theater commands, support nodes, and Tactical Training Equipment (TTE).</p> <p>[P40A / Engineering Changes (ECs)]: VM601 - USW-DSS/Engineering Changes: Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades. Funding will be used to support Reliability, Maintainability, and Availability (RM&amp;A) modifications, correct deficiencies identified through Fleet use, and upgrade of unreliable components.</p> <p>[P40A / System Technical Support]: VM601 - USW-DSS/System Technical Support: Funding is for the USW-DSS program Software Support Activity efforts in performing the following functions: generation/assessment of Software Problem Reports (SPRs)/Software Trouble Reports (STRs); responding to Fleet software change requests; Configuration Management (CM); software Quality Assurance (QA); software installation automation; and software recovery support.</p> <p>[P40A / Production Support]: VM601 - USW-DSS/Production Support: Consists of on-site engineering support; CANES Integrated Product Team (IPT) Support; Information Assurance (IA) certification support; production quality assurance; system sustainability support; Integrated Logistics Support (ILS) product updates/support; status reporting and technical briefings; program office support; and all other production support efforts directly related to delivery of USW-DSS to both ISNS/CANES and ultimately the Fleet.</p> <p>[P40A / CANES S/W Shipsets]: VM601 - CANES S/W Shipsets: Consists of initial loads of the post-OPEVAL USW-DSS Build 2 Release 3 software suite on new CANES ships, which includes changes dictated by the FY 2013 OPEVAL of USW-DSS Build 2 Release 3. Schedule is dependent on/coordinated with CANES fielding. Prior Years reflect ISNS software shipsets.</p> <p>[P40A / Theater ASW Build Out]: VM601 - Theater ASW Build Out: Non-recurring engineering effort required to incorporate/field Theater Anti-Submarine Warfare (ASW) upgrades to USW-DSS systems, with the integrated Common Operational Picture (COP), to shore nodes operating in the multi-level security environment. Upgraded systems will include laboratory, tactical, and training shore nodes.</p> |                                        |                                                                            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                 |                                       |             |                                               |                |                                                                                   |                                                           | <b>Date:</b> February 2018               |                                          |                                          |                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|-----------------------------------------------|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 2: Ship Sonars                                                                               |                                       |             |                                               |                | <b>P-1 Line Item Number / Title:</b><br>2176 / Undersea Warfare Support Equipment |                                                           |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                          |                                       |             | <b>Program Elements for Code B Items:</b> N/A |                |                                                                                   | <b>Other Related Program Elements:</b> 0603512N, 0604518N |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                              |                                       |             |                                               |                |                                                                                   |                                                           |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                 |                                       |             |                                               |                | Prior Years                                                                       | FY 2017                                                   | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                      | Title*                                | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M)                                          | Quantity / Total Cost<br>(Each) / (\$ M)                  | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                             | Undersea Warfare Support Equipment    | P-5a        |                                               |                | - / 98.656                                                                        | - / 7.163                                                 | - / 13.653                               | - / 10.134                               | - / -                                    | - / 10.134                               |
| <b>P-40</b>                                                                                                                                                                                                                                       | <b>Total Gross/Weapon System Cost</b> |             |                                               |                | <b>- / 98.656</b>                                                                 | <b>- / 7.163</b>                                          | <b>- / 13.653</b>                        | <b>- / 10.134</b>                        | <b>- / 0.000</b>                         | <b>- / 10.134</b>                        |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown. |                                       |             |                                               |                |                                                                                   |                                                           |                                          |                                          |                                          |                                          |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                            |                                       |             |                                               |                |                                                                                   |                                                           |                                          |                                          |                                          |                                          |

## Justification:

### YEAR-TO-YEAR BUDGET CONTROL COMPARISON:

- FY 2017 (\$7.163M) to FY 2018 (\$13.653M) increase (\$+6.490M) is driven by the requirement for improvements and tech refreshes of USW-DSS to avoid obsolescence and improve reliability and maintainability. The tech refresh includes all USW-DSS/UYQ-100 hardware Technical Insertion (TI)-08 baseline afloat and shore sites, including Surveillance Towed Array Sensor System (SURTASS) ships, Theater commands, support nodes, and Tactical Training Equipment (TTE).

- FY 2018 (\$13.653M) to FY 2019 (\$10.134M) decrease (\$-3.519M) is driven by the reduced (as compared to FY 2018) requirement for the USW-DSS program's procurement of shore site, tactical trainer, and tech refresh upgrades in FY 2019.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy    |       |                |                |            |                   |                |            |                   |                                                                            |            |                   |                |            |                   |                | Date: February 2018                                           |                   |                |            |                   |  |
|--------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|---------------------------------------------------------------|-------------------|----------------|------------|-------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2       |       |                |                |            |                   |                |            |                   | P-1 Line Item Number / Title:<br>2176 / Undersea Warfare Support Equipment |            |                   |                |            |                   |                | Aggregated Items Title:<br>Undersea Warfare Support Equipment |                   |                |            |                   |  |
| Item Number / Title [DODIC]                                                    | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018                                                                    |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                                               |                   | FY 2019 Total  |            |                   |  |
|                                                                                |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                             | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                    | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |  |
| 1) PROGRAMS COMPLETED UNDER THIS P-1 LINE ITEM IN PRIOR YEARS                  |       |                |                |            |                   |                |            |                   |                                                                            |            |                   |                |            |                   |                |                                                               |                   |                |            |                   |  |
| 1.1) Programs Completed Under this P-1 Line Item in Prior Years <sup>(1)</sup> |       |                | -              | -          | 4.807             | -              | -          | -                 | -                                                                          | -          | -                 | -              | -          | -                 | -              | -                                                             | -                 | -              | -          | -                 |  |
| Subtotal: 1) PROGRAMS COMPLETED UNDER THIS P-1 LINE ITEM IN PRIOR YEARS        |       |                | -              | -          | 4.807             | -              | -          | -                 | -                                                                          | -          | -                 | -              | -          | -                 | -              | -                                                             | -                 | -              | -          | -                 |  |
| 2) VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC)                   |       |                |                |            |                   |                |            |                   |                                                                            |            |                   |                |            |                   |                |                                                               |                   |                |            |                   |  |
| 2.1) CV-TSC Technology Insert/ Refresh & ECP Implementation <sup>(2)</sup>     | A     |                | -              | -          | 10.516            | -              | -          | 0.315             | -                                                                          | -          | 0.338             | -              | -          | 0.334             | -              | -                                                             | -                 | -              | -          | 0.334             |  |
| Subtotal: 2) VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC)         |       |                | -              | -          | 10.516            | -              | -          | 0.315             | -                                                                          | -          | 0.338             | -              | -          | 0.334             | -              | -                                                             | -                 | -              | -          | 0.334             |  |
| 3) VM401 - SURFACE SONAR WINDOWS AND DOMES                                     |       |                |                |            |                   |                |            |                   |                                                                            |            |                   |                |            |                   |                |                                                               |                   |                |            |                   |  |
| 3.1) Surface Sonar Windows and Domes <sup>(3)(t)</sup>                         | A     |                | 2,874K         | 11         | 31.615            | 2,219K         | 1          | 2.219             | 2,241K                                                                     | 1          | 2.241             | 2,264K         | 1          | 2.264             | -              | -                                                             | -                 | 2,264K         | 1          | 2.264             |  |
| 3.2) Production Support <sup>(4)</sup>                                         |       |                | -              | -          | 11.167            | -              | -          | 0.166             | -                                                                          | -          | 0.290             | -              | -          | 0.231             | -              | -                                                             | -                 | -              | -          | 0.231             |  |
| Subtotal: 3) VM401 - SURFACE SONAR WINDOWS AND DOMES                           |       |                | -              | -          | 42.782            | -              | -          | 2.385             | -                                                                          | -          | 2.531             | -              | -          | 2.495             | -              | -                                                             | -                 | -              | -          | 2.495             |  |
| 4) VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)                  |       |                |                |            |                   |                |            |                   |                                                                            |            |                   |                |            |                   |                |                                                               |                   |                |            |                   |  |
| 4.1) Carrier Strike Group (CSG) Shipsets <sup>(5)</sup>                        | A     |                | 11,812K        | 1          | 11.812            | -              | -          | -                 | -                                                                          | -          | -                 | -              | -          | -                 | -              | -                                                             | -                 | -              | -          | -                 |  |
| 4.2) Backfit To Post-OPEVAL <sup>(6)(t)</sup>                                  | A     |                | 20,000.00      | 26         | 0.520             | 21,000.00      | 17         | 0.357             | -                                                                          | -          | -                 | -              | -          | -                 | -              | -                                                             | -                 | -              | -          | -                 |  |
| 4.3) ISNS to CANES S/W Shipsets <sup>(7)(t)</sup>                              | A     |                | 17,500.00      | 26         | 0.455             | 65,000.00      | 2          | 0.130             | -                                                                          | -          | -                 | -              | -          | -                 | -              | -                                                             | -                 | -              | -          | -                 |  |
| 4.4) Shore Sites and Tactical Trainers <sup>(8)(t)</sup>                       | A     |                | -              | -          | 3.645             | 445,000.00     | 2          | 0.890             | 450,000.00                                                                 | 4          | 1.800             | 460,000.00     | 1          | 0.460             | -              | -                                                             | -                 | 460,000.00     | 1          | 0.460             |  |
| 4.5) USW-DSS Tech Refresh <sup>(9)(t)</sup>                                    | A     |                | -              | -          | -                 | -              | -          | -                 | 311,000.00                                                                 | 12         | 3.732             | 315,000.00     | 5          | 1.575             | -              | -                                                             | -                 | 315,000.00     | 5          | 1.575             |  |
| 4.6) Engineering Changes (ECs) <sup>(10)</sup>                                 |       |                | -              | -          | 5.023             | -              | -          | 0.843             | -                                                                          | -          | 1.110             | -              | -          | 1.076             | -              | -                                                             | -                 | -              | -          | 1.076             |  |
| 4.7) System Technical Support <sup>(11)</sup>                                  |       |                | -              | -          | 6.207             | -              | -          | 0.766             | -                                                                          | -          | 2.204             | -              | -          | 2.197             | -              | -                                                             | -                 | -              | -          | 2.197             |  |
| 4.8) Production Support <sup>(12)</sup>                                        |       |                | -              | -          | 10.243            | -              | -          | 0.321             | -                                                                          | -          | 0.858             | -              | -          | 0.814             | -              | -                                                             | -                 | -              | -          | 0.814             |  |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                 |                |            |                   |                |                                                                            |                   |                |            |                   |                |            |                                                               | Date: February 2018 |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|-----------------|----------------|------------|-------------------|----------------|----------------------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|---------------------------------------------------------------|---------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 2    |       |                 |                |            |                   |                | P-1 Line Item Number / Title:<br>2176 / Undersea Warfare Support Equipment |                   |                |            |                   |                |            | Aggregated Items Title:<br>Undersea Warfare Support Equipment |                     |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/ MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                                                               | FY 2019 OCO         |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                 | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                                 | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                             | Unit Cost (\$)      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 4.9) CANES S/W Shipsets <sup>(13)(f)</sup>                                  | A     |                 | 98,000.00      | 27         | 2.646             | 68,000.00      | 17                                                                         | 1.156             | 90,000.00      | 12         | 1.080             | 91,000.00      | 13         | 1.183                                                         | -                   | -          | -                 | 91,000.00      | 13         | 1.183             |
| Subtotal: 4) VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)     |       |                 | -              | -          | 40.551            | -              | -                                                                          | 4.463             | -              | -          | 10.784            | -              | -          | 7.305                                                         | -                   | -          | -                 | -              | -          | 7.305             |
| Total                                                                       |       |                 | -              | -          | 98.656            | -              | -                                                                          | 7.163             | -              | -          | 13.653            | -              | -          | 10.134                                                        | -                   | -          | -                 | -              | -          | 10.134            |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(f) indicates the presence of a P-5a

**Footnotes:**

- (1) (1.1) Programs Completed Under This P-1 Line Item in Prior Years. Includes \$4.807M for the VM201 Acoustic Communications (ACOMMS) and Depth Sounders program that was completed in FY 2016.
- (2) (2.1) VM301 - CV-TSC Technology Insert/Refresh & ECP Implementation: Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades to previously fielded and in-production AN/SQQ-34 systems. Funding used to implement ECPs to correct deficiencies identified through Fleet use; upgrade unreliable components; replace obsolete components; and address Information Assurance (IA) issues.
- (3) (3.1) VM401 - Surface Sonar Windows and Domes: Procure SDRWs, shipping fixtures, and fairing angles for emergency replacement on CG 47 and DDG 51 class hulls.
- (4) (3.2) VM401 - SDRW Production Support: Funding is provided for production engineering in support of technical evaluations, failure analysis, implementation of the in-water one-side backscatter X-ray program, Government Furnished Equipment (GFE) refurbishments, and field service engineering; and complete engineering design work and material tests. This program also provides drawings, configuration management information, new design and fabrication technology, incorporation of lessons learned and required testing, and construct sub-element to confirm single-stage cure.
- (5) (4.1) VM601 - USW-DSS/Carrier Strike Group (CSG) Shipsets: Consists of the complete USW-DSS (hardware, software, and support equipment).
- (6) (4.2) VM601 - USW-DSS/Backfit To Post-OPEVAL: Consists of updates to existing USW-DSS Build 2 Release 3 systems in the Fleet with changes dictated by the FY 2013 OPEVAL of USW-DSS Build 2 Release 3.
- (7) (4.3) VM601 - USW-DSS/ISNS/CANES S/W Shipsets: Consists of USW-DSS Build 2 Release 3 software load onto ISNS/CANES platforms. Include updates from ISNS to CANES as well as new CANES software and workstation suites. Schedule is dependent upon/coordinated with ISNS/CANES fielding.
- (8) (4.4) VM601 - USW-DSS/Shore Sites and Tactical Trainers: Consists of USW-DSS post-OPEVAL Build 2 Release 3 shore/lab assets and Tactical Training Equipment systems, which are full hardware/software suites. USW-DSS Build 3 will be loaded on all training and shore site nodes beginning in FY 2019.
- (9) (4.5) VM601 - USW-DSS Tech Refresh: Funding is for hardware/software technology upgrades to previously fielded USW-DSS/UYQ-100 hardware Technical Insertion (TI)-08 baseline afloat and shore sites, including Surveillance Towed Array Sensor System (SURTASS) ships, Theater commands, support nodes, and Tactical Training Equipment (TTE).
- (10) (4.6) VM601 - USW-DSS/Engineering Changes: Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades. Funding will be used to support Reliability, Maintainability, and Availability (RM&A) modifications, correct deficiencies identified through Fleet use, and upgrade of unreliable components.
- (11) (4.7) VM601 - USW-DSS/System Technical Support: Funding is for the USW-DSS program Software Support Activity efforts in performing the following functions: generation/assessment of Software Problem Reports (SPRs)/Software Trouble Reports (STRs); responding to Fleet software change requests; Configuration Management (CM); software Quality Assurance (QA); software installation automation; and software recovery support.
- (12) (4.8) VM601 - USW-DSS/Production Support: Consists of on-site engineering support; CANES Integrated Product Team (IPT) Support; Information Assurance (IA) certification support; production quality assurance; system sustainability support; Integrated Logistics Support (ILS) product updates/support; status reporting and technical briefings; program office support; and all other production support efforts directly related to delivery of USW-DSS to both ISNS/CANES and ultimately the Fleet.
- (13) (4.9) VM601 - CANES S/W Shipsets: Consists of initial loads of the post-OPEVAL USW-DSS Build 2 Release 3 software suite on new CANES ships, which includes changes dictated by the FY 2013 OPEVAL of USW-DSS Build 2 Release 3. Schedule is dependent on/coordinated with CANES fielding. Prior Years reflect ISNS software shipsets. Beginning in 2018, Build 3 will replace Build 2 Release 3.

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |             |      |                                                              |                                                                                   |                 |               |                              |               | <b>Date:</b> February 2018                                     |                        |                               |                   |
|---------------------------------------------------------------------------------|-------------|------|--------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------|---------------|------------------------------|---------------|----------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 2 |             |      |                                                              | <b>P-1 Line Item Number / Title:</b><br>2176 / Undersea Warfare Support Equipment |                 |               |                              |               | <b>Aggregated Items:</b><br>Undersea Warfare Support Equipment |                        |                               |                   |
| Item Number / Title [DODIC]                                                     | O<br>C<br>O | FY   | Contractor and Location                                      | Method/Type<br>or<br>Funding Vehicle                                              | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                              | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>3) VM401 - SURFACE SONAR WINDOWS AND DOMES</b>                               |             |      |                                                              |                                                                                   |                 |               |                              |               |                                                                |                        |                               |                   |
| 3.1) Surface Sonar Windows and Domes <sup>(3)</sup>                             |             | 2016 | UTC Aerospace Systems (formerly Goodrich) / Jacksonville, FL | SS / FP                                                                           | NAVEA           | Jan 2016      | Jan 2017                     | 1             | 2,197K                                                         | Y                      |                               |                   |
| 3.1) Surface Sonar Windows and Domes <sup>(3)</sup>                             |             | 2017 | UTC Aerospace Systems (formerly Goodrich) / Jacksonville, FL | SS / FP                                                                           | NAVSEA          | Aug 2017      | Aug 2018                     | 1             | 2,219K                                                         | Y                      |                               |                   |
| 3.1) Surface Sonar Windows and Domes <sup>(3)</sup>                             |             | 2018 | UTC Aerospace Systems (formerly Goodrich) / Jacksonville, FL | SS / FP                                                                           | NAVSEA          | Mar 2018      | Mar 2019                     | 1             | 2,241K                                                         | Y                      |                               |                   |
| 3.1) Surface Sonar Windows and Domes <sup>(3)</sup>                             |             | 2019 | UTC Aerospace Systems (formerly Goodrich) / Jacksonville, FL | SS / FP                                                                           | NAVSEA          | Mar 2019      | Mar 2020                     | 1             | 2,264K                                                         | Y                      |                               |                   |
| <b>4) VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)</b>            |             |      |                                                              |                                                                                   |                 |               |                              |               |                                                                |                        |                               |                   |
| 4.2) Backfit To Post-OPEVAL <sup>(6)</sup>                                      |             | 2016 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2015      | Feb 2016                     | 26            | 20,000.00                                                      | Y                      |                               |                   |
| 4.2) Backfit To Post-OPEVAL <sup>(6)</sup>                                      |             | 2017 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2016      | Feb 2017                     | 17            | 21,000.00                                                      | Y                      |                               |                   |
| 4.3) ISNS to CANES S/W Shipsets <sup>(7)</sup>                                  |             | 2016 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2015      | Feb 2016                     | 7             | 65,000.00                                                      | Y                      |                               |                   |
| 4.3) ISNS to CANES S/W Shipsets <sup>(7)</sup>                                  |             | 2017 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2016      | Feb 2017                     | 2             | 65,000.00                                                      | Y                      |                               |                   |
| 4.4) Shore Sites and Tactical Trainers <sup>(8)</sup>                           |             | 2017 | Progeny Systems, Corporation / Manassas, VA                  | C / CPFF                                                                          | NAVSEA          | Nov 2016      | Apr 2017                     | 2             | 445,000.00                                                     | Y                      |                               |                   |
| 4.4) Shore Sites and Tactical Trainers <sup>(8)</sup>                           |             | 2018 | Progeny Systems, Corporation / Manassas, VA                  | C / CPFF                                                                          | NAVSEA          | Dec 2017      | May 2018                     | 4             | 450,000.00                                                     | Y                      |                               |                   |
| 4.4) Shore Sites and Tactical Trainers <sup>(8)</sup>                           |             | 2019 | Progeny Systems, Corporation / Manassas, VA                  | C / CPFF                                                                          | NAVSEA          | Nov 2018      | Apr 2019                     | 1             | 460,000.00                                                     | Y                      |                               |                   |
| 4.5) USW-DSS Tech Refresh <sup>(9)</sup>                                        |             | 2018 | Progeny Systems, Corporation / Manassas, VA                  | C / CPFF                                                                          | NAVSEA          | Dec 2017      | May 2018                     | 12            | 311,000.00                                                     | Y                      |                               |                   |
| 4.5) USW-DSS Tech Refresh <sup>(9)</sup>                                        |             | 2019 | Progeny Systems, Corporation / Manassas, VA                  | C / CPFF                                                                          | NAVSEA          | Nov 2018      | Apr 2019                     | 5             | 315,000.00                                                     | Y                      |                               |                   |
| 4.9) CANES S/W Shipsets <sup>(13)</sup>                                         |             | 2016 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2015      | Feb 2016                     | 8             | 66,000.00                                                      | Y                      |                               |                   |
| 4.9) CANES S/W Shipsets <sup>(13)</sup>                                         |             | 2017 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2016      | Feb 2017                     | 17            | 68,000.00                                                      | Y                      |                               |                   |
| 4.9) CANES S/W Shipsets <sup>(13)</sup>                                         |             | 2018 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2017      | Feb 2018                     | 12            | 90,000.00                                                      | Y                      |                               |                   |
| 4.9) CANES S/W Shipsets <sup>(13)</sup>                                         |             | 2019 | NUWC/Keyport / Keyport, WA                                   | WR                                                                                | NAVSEA          | Nov 2018      | Feb 2019                     | 13            | 91,000.00                                                      | Y                      |                               |                   |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------|--------------------|----------------------|----------------------------------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                |                    |                |                |                                               |                    |                      |                                                                                  |                                            |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                                            |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                         |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                                  | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                             |                    |                |                |                                               |                    |                      |                                                                                  |                                            |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                      | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                 | 114.194            | 21.291         | 21.449         | 23.815                                        | 0.000              | 23.815               | 25.156                                                                           | 25.309                                     | 26.065         | 26.600                     | Continuing         | Continuing        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                              | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                | -                                          | -              | -                          | -                  | -                 |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                    | 114.194            | 21.291         | 21.449         | 23.815                                        | 0.000              | 23.815               | 25.156                                                                           | 25.309                                     | 26.065         | 26.600                     | Continuing         | Continuing        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                              | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                | -                                          | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> <i>(\$ in Millions)</i>                                                                                                                        | <b>114.194</b>     | <b>21.291</b>  | <b>21.449</b>  | <b>23.815</b>                                 | <b>0.000</b>       | <b>23.815</b>        | <b>25.156</b>                                                                    | <b>25.309</b>                              | <b>26.065</b>  | <b>26.600</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                    |                    |                |                |                                               |                    |                      |                                                                                  |                                            |                |                            |                    |                   |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                           | -                  | 0.366          | 2.023          | 0.661                                         | -                  | 0.661                | 0.490                                                                            | 0.487                                      | 1.026          | 0.605                      | Continuing         | Continuing        |
| Flyaway Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                         | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                             | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                | -                                          | -              | -                          | -                  | -                 |

**Description:**

The Submarine Acoustic Warfare System (SAWS) program provides submarines with expendable defensive countermeasures and the systems necessary to externally launch them against torpedo and acoustic sensor threats. This program provides ongoing production of countermeasure devices needed to sustain fleet inventories, improvements to enhance the readiness and effectiveness of countermeasure devices and associated external countermeasure launcher (ECL) systems on all U.S. submarines. The expendable devices, Acoustic Device Countermeasures (ADC) are produced in two primary versions 3" ADC's are launched through the Internal Countermeasure Launcher (ICL) and 6" devices are launched through ECL Systems. An updated increased Acoustic Augmentation Support Program(AASP)SHIPALT installation cost estimate has slowed installs through FYDP and funds are shifted to accommodate increases in CSA engineering technology refresh and insertion costs, driven by ADC MK5 (NGCM) testing, and introduction in FY22-24.

WM018 - The Acoustic Augmentation Support Program (AASP) provides acoustic augmenting systems in appropriate configurations for all submarine classes (except SEAWOLF) installed as temporary equipment (TEMPALT). A permanently installed Ship Alteration (SHIPALT) configuration for VIRGINIA Class Block I/II/III design was completed in FY16 and installations will start in FY17 (delayed from FY16 because budget insufficient for installation costs). A SHIPALT for VIRGINIA Class Block IV will be developed in FY17 and installations will start in FY26, gradually phasing out the TEMPALTs on VIRGINIA Class. Reliability and refresh upgrades sustain current in-service AASP systems with new components and software updates to maintain reliability.

WM019 - The Countermeasure Set, Acoustic (CSA) program procures and supports the inboard electronic system necessary for preparing and launching 6" Acoustic Device Countermeasures (ADCs) from all 688i and newer U.S. submarines. The CSA program provides obsolescence support for legacy systems and engineering changes to accommodate modified and planned new devices, such as the ADC MK5. Four efforts are supported: (1) the "Technology Refresh" effort is designing, building, testing and certifying replacement components for obsolete CSA MK2 systems (MOD0/3/4) on 688i SSN and OHIO SSBN submarines, with the refresh occurring in FY17-FY20. (2) The "CSA MK3 Technology Insertion" effort is federating the CSA MK3 system with Submarine Warfare Federated Tactical System (SWFTS) to facilitate the ADC MK5 and Submarine Torpedo Defense Tactical Decision Aid (SubTDS TacDA) upon introduction. A phased approach was taken to allow a more efficient incremental implementation of initial capabilities. Required funding is expected to level off after ADC MK5 device fielding and address recurring upgrades with Advanced Processor Build/ Technology Insertion (APB/TI) cycles. (3) The "CSA MK4 Technology Insertion" effort replaces CSA MK2 MOD2 with CSA MK4 as a "SWFTS-federated" system on VIRGINIA Class Block I and II submarines (10 hulls) to accommodate the introduction of ADC MK5 devices. Non-recurring engineering will complete, with installs starting in FY19. (4) The fourth effort is the ongoing support of engineering issues across all CSA systems as they arise.

[P40A / WM014 6 INCH]: WM014 6 INCH - The 6" Countermeasures program procures, reworks, and refreshes ADC MK3 (torpedo countermeasure) devices, ADC MK4 (SONAR countermeasure) devices, and associated Launch Tubes in order to maintain submarine fleet countermeasure device inventory levels in accordance with the Naval Munition Requirements Process

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        | Date: February 2018                                                       |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                        | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                                       |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                           |
| <p>(NMRP). The 6" Countermeasure program tracks and implements device improvements through configuration control and an Engineering Change Proposal (ECP) process. A Service Life Extension Program (SLEP) was initiated in FY14 for ADC MK3 and MK4 devices to extend the usability of 6" devices. A new competitive production contract is planned to be awarded in FY19.</p>                                                                                                                                                                                                                                                         |                                        |                                                                           |
| <p>[P40A / WM015 3 INCH]: WM015 3 INCH - The 3" Countermeasures program procures ADC MK2 MODs 3, 5, and 7 countermeasure devices in order to maintain submarine fleet countermeasure device inventory levels in accordance with the Naval Munition Requirements Process (NMRP). The 3" Countermeasures program tracks and implements device improvements through configuration control and the ECP process.</p>                                                                                                                                                                                                                         |                                        |                                                                           |
| <p>[P40A / NEXT GENERATION COUNTERMEASURE (NGCM) ADC MK5]: The Submarine Torpedo Defense System (SubTDS) Program to support a FY24 IOC will transition the ADC MK5 into production a full and open competitive production contract to be awarded in FY23</p>                                                                                                                                                                                                                                                                                                                                                                            |                                        |                                                                           |
| <p>[P40A / WM022 GAS GENERATOR MK77]: WM022 Gas Generator MK 77 - The MK77 Gas Generator (GG) program procures the energetic components required to launch the ADC MK3 and ADC MK4 countermeasure devices from the External Countermeasure Launchers (ECLs). The GG program also reworks existing devices to extend their service life, and tracks and implements device improvements through configuration control and ECP process. A SLEP for MK77 MOD0 devices was completed in FY16, resulted in extending the service life from two (2) to four (4) years for all devices except those installed aboard SSGN class submarines.</p> |                                        |                                                                           |
| <p>[P40A / WM830 PRODUCTION ENGINEERING]: WM830 - Production Engineering - The Production Engineering line provides production engineering services for SAWS Technical Design Agent (TDA) and In-Service Engineering Agent (ISEA) across all SAWS systems, including AASP.</p>                                                                                                                                                                                                                                                                                                                                                          |                                        |                                                                           |
| <p>[P40A / PRODUCTION ENGINEERING]: Production Engineering adjustment commensurate with anticipated work. To support the ordnance assessment that is planned to extend the service life.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                                                                           |
| <p>[P40A / WM900 CONSULTING SERVICES]: WM900 Consulting Services - The Consulting Services line procures contractor support services for all SAWS programs.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        |                                                                           |



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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------|--|----------------------------------------------------------------------------------|--|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                             |  |                                               |  | <b>Date:</b> February 2018                                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment |  |                                               |  | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                      |  | <b>Program Elements for Code B Items:</b> N/A |  | <b>Other Related Program Elements:</b> N/A                                       |  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                          |  |                                               |  |                                                                                  |  |

| Exhibits Schedule |                                    |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                             | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | Submarine Acoustic Warfare System  | P-5a, P-21  |       |                | - / 80.455                               | - / 9.279                                | - / 7.643                                | - / 13.433                               | - / -                                    | - / 13.433                               |
| P-3a              | 1 / AASP WM018 (Tactical TEMPALT)  |             |       |                | - / 6.669                                | - / 2.843                                | - / 3.022                                | - / 4.061                                | - / 0.000                                | - / 4.061                                |
| P-3a              | 2 / CSA WM019 (SHIPALT, OCMOD, EC) |             |       |                | - / 27.070                               | - / 9.169                                | - / 10.784                               | - / 6.321                                | - / 0.000                                | - / 6.321                                |
| P-40              | Total Gross/Weapon System Cost     |             |       |                | - / 114.194                              | - / 21.291                               | - / 21.449                               | - / 23.815                               | - / 0.000                                | - / 23.815                               |

  

| Exhibits Schedule |                                    |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                             | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | Submarine Acoustic Warfare System  | P-5a, P-21  |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / AASP WM018 (Tactical TEMPALT)  |             |       |                | - / 2.504                                | - / 2.553                                | - / 5.757                                | - / 4.901                                | - / 34.449                               | - / 66.759                               |
| P-3a              | 2 / CSA WM019 (SHIPALT, OCMOD, EC) |             |       |                | - / 7.403                                | - / 7.991                                | - / 7.137                                | - / 8.373                                | Continuing                               | Continuing                               |
| P-40              | Total Gross/Weapon System Cost     |             |       |                | - / 25.156                               | - / 25.309                               | - / 26.065                               | - / 26.600                               | Continuing                               | Continuing                               |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**  
 The FY 2019 funding request was reduced by \$0.037 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

Increase in funding request from FY18 to FY19 (~\$2 million) provides for the new MK3/4 ADC Non-Recurring Engineering support.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                                                               |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              | Date: February 2018 |            |                   |                |            |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|---------------------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|--------------------------------------------------------------|---------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3                                                                  |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |                   |                |            |                   |                |            | Aggregated Items Title:<br>Submarine Acoustic Warfare System |                     |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                                                                               | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                           |                   | FY 2018        |            |                   | FY 2019 Base   |            |                                                              | FY 2019 OCO         |            |                   | FY 2019 Total  |            |                   |
|                                                                                                                                           |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                                | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                            | Unit Cost (\$)      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) WM014 6 INCH                                                                                                                           |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              |                     |            |                   |                |            |                   |
| 1.1) 6" Countermeasure Launch Tube <sup>(1)(†)</sup>                                                                                      | A     |                | 9,121.98       | 828        | 7.553             | 5,125.00       | 177                                                                       | 0.907             | 5,770.00       | 125        | 0.721             | -              | -          | -                                                            | -                   | -          | -                 | -              | -          | -                 |
| 1.2) ADC MK3 (TORPEDO) NEW <sup>(2)(†)</sup>                                                                                              | A     |                | 29,089.16      | 572        | 16.639            | 42,657.14      | 35                                                                        | 1.493             | 41,952.38      | 42         | 1.762             | -              | -          | -                                                            | -                   | -          | -                 | -              | -          | -                 |
| 1.3) ADC MK3 NON RECURRING <sup>(3)</sup>                                                                                                 | A     |                | -              | -          | -                 | -              | -                                                                         | -                 | -              | -          | -                 | -              | -          | 7.200                                                        | -                   | -          | -                 | -              | -          | 7.200             |
| 1.4) MK 3 ADC SLEP <sup>(4)(†)</sup>                                                                                                      | A     |                | 9,789.92       | 238        | 2.330             | 16,000.00      | 28                                                                        | 0.448             | 14,850.00      | 20         | 0.297             | -              | -          | -                                                            | -                   | -          | -                 | -              | -          | -                 |
| 1.6) ADC MK 4 SLEP <sup>(5)(†)</sup>                                                                                                      | A     |                | 11,779.07      | 86         | 1.013             | 11,750.00      | 12                                                                        | 0.141             | -              | -          | -                 | -              | -          | -                                                            | -                   | -          | -                 | -              | -          | -                 |
| Subtotal: 1) WM014 6 INCH                                                                                                                 |       |                | -              | -          | 27.535            | -              | -                                                                         | 2.989             | -              | -          | 2.780             | -              | -          | 7.200                                                        | -                   | -          | -                 | -              | -          | 7.200             |
| 2) WM015 3 INCH                                                                                                                           |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              |                     |            |                   |                |            |                   |
| 2.1) NAE BEACON <sup>(6)(†)</sup>                                                                                                         | A     |                | 5,680.71       | 2,421      | 13.753            | -              | -                                                                         | -                 | -              | -          | -                 | -              | -          | -                                                            | -                   | -          | -                 | -              | -          | -                 |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                                                                            | A     |                | 5,509.80       | 1,530      | 8.430             | 6,000.00       | 100                                                                       | 0.600             | 6,185.00       | 100        | 0.619             | 5,941.06       | 509        | 3.024                                                        | -                   | -          | -                 | 5,941.06       | 509        | 3.024             |
| Subtotal: 2) WM015 3 INCH                                                                                                                 |       |                | -              | -          | 22.183            | -              | -                                                                         | 0.600             | -              | -          | 0.619             | -              | -          | 3.024                                                        | -                   | -          | -                 | -              | -          | 3.024             |
| 3) WM022 GAS GENERATOR MK77                                                                                                               |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              |                     |            |                   |                |            |                   |
| 3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION <sup>(8)(†)</sup>                                                                            | A     |                | 10,781.07      | 1,416      | 15.266            | 20,492.75      | 138                                                                       | 2.828             | 18,975.00      | 80         | 1.518             | 19,337.50      | 80         | 1.547                                                        | -                   | -          | -                 | 19,337.50      | 80         | 1.547             |
| 3.2) Gas Generator MK77 Mod 0 <sup>(9)(†)</sup>                                                                                           | A     |                | 9,185.96       | 570        | 5.236             | 12,390.24      | 41                                                                        | 0.508             | 12,463.00      | 40         | 0.499             | 12,700.00      | 40         | 0.508                                                        | -                   | -          | -                 | 12,700.00      | 40         | 0.508             |
| Subtotal: 3) WM022 GAS GENERATOR MK77                                                                                                     |       |                | -              | -          | 20.502            | -              | -                                                                         | 3.336             | -              | -          | 2.017             | -              | -          | 2.055                                                        | -                   | -          | -                 | -              | -          | 2.055             |
| 4) WM830 PRODUCTION ENGINEERING                                                                                                           |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              |                     |            |                   |                |            |                   |
| 4.1) PRODUCTION ENGINEERING                                                                                                               | A     |                | -              | -          | 8.028             | -              | -                                                                         | 1.894             | -              | -          | 1.758             | -              | -          | 0.601                                                        | -                   | -          | -                 | -              | -          | 0.601             |
| Subtotal: 4) WM830 PRODUCTION ENGINEERING                                                                                                 |       |                | -              | -          | 8.028             | -              | -                                                                         | 1.894             | -              | -          | 1.758             | -              | -          | 0.601                                                        | -                   | -          | -                 | -              | -          | 0.601             |
| 5) WM900 CONSULTING SERVICES                                                                                                              |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              |                     |            |                   |                |            |                   |
| 5.1) CONSULTING SERVICES                                                                                                                  | A     |                | -              | -          | 2.207             | -              | -                                                                         | 0.460             | -              | -          | 0.469             | -              | -          | 0.553                                                        | -                   | -          | -                 | -              | -          | 0.553             |
| Subtotal: 5) WM900 CONSULTING SERVICES                                                                                                    |       |                | -              | -          | 2.207             | -              | -                                                                         | 0.460             | -              | -          | 0.469             | -              | -          | 0.553                                                        | -                   | -          | -                 | -              | -          | 0.553             |
| Total                                                                                                                                     |       |                | -              | -          | 80.455            | -              | -                                                                         | 9.279             | -              | -          | 7.643             | -              | -          | 13.433                                                       | -                   | -          | -                 | -              | -          | 13.433            |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.<br>(†) indicates the presence of a P-5a |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                                                              |                     |            |                   |                |            |                   |

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|                                                                                    |                                                                                  |                                                                     |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2019 Navy |                                                                                  | <b>Date:</b> February 2018                                          |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3    | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System | <b>Aggregated Items Title:</b><br>Submarine Acoustic Warfare System |

**Footnotes:**

- <sup>(1)</sup> Starting in FY19, LT's are included in next contract for ADC MK3 and MK4.
- <sup>(2)</sup> No new devices will be procured in FY19, due to new contract.
- <sup>(3)</sup> New ADC MK3/4 contract awards in FY19 with NRE cost for startup, including First Article Testing of \$7.2 million, based on historical expenditure on startup effort.
- <sup>(4)</sup> Starting in FY17, The program office began an effort to optimize inventory by maximizing service life extensions of expiring devices. The SLEP quantities were reduced due to a lack of suitable devices for SLEP. The program is investigating a further extension of service life.
- <sup>(5)</sup> The reduction in SLEP units does not translate fully into new units because some funding is being used to fund the TI to investigate the 16 year SLEP study in FY17 & FY18 second ISEA support, IMA Tech support, ILS, and etc. An effort to more accurately define the requirements and inventory levels that started in FY17 has led to a rebalancing effort within the program element to achieve the NMRP levels by recurring SLEP. The increase in SLEP procurements, more actual SLEP quantities were reduced from the plan due to an unavailability of assets to SLEP.
- <sup>(6)</sup> The budget for NAE Beacons is no longer necessary due to ADC MK2 MOD7 incorporating NAE Beacon functionality.
- <sup>(7)</sup> Quantity in FY19 is increased to attain inventory objective as well as maintain cost within step ladder pricing in conjunction with Surface Ship ADC procurements.
- <sup>(8)</sup> Cost of MK77 reflects only unit cost of MK77 MOD1 in new production. MK77 MOD1 GGs are procured as wholly new devices; Unit cost includes prorated share of management and engineering oversight. MK77 MOD1 new production is broken out for clarification of units and unit cost where MK77 MOD0 rework is planned. The increase in APUC by 10% is the historical amount that has been added to the unit price to cover the engineering efforts of the ISEA and TDA. This has normally been spread out across all devices.
- <sup>(9)</sup> MK77 GGs Mod0 are broken out for clarification of units and unit cost because they are reworked units, not wholly new units.

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |             |      |                         |                                                                                  |                 |               |                              |               | <b>Date:</b> February 2018                                    |                        |                               |                   |
|---------------------------------------------------------------------------------|-------------|------|-------------------------|----------------------------------------------------------------------------------|-----------------|---------------|------------------------------|---------------|---------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |             |      |                         | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                 |               |                              |               | <b>Aggregated Items:</b><br>Submarine Acoustic Warfare System |                        |                               |                   |
| Item Number / Title [DODIC]                                                     | O<br>C<br>O | FY   | Contractor and Location | Method/Type<br>or<br>Funding Vehicle                                             | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                             | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>1) WM014 6 INCH</b>                                                          |             |      |                         |                                                                                  |                 |               |                              |               |                                                               |                        |                               |                   |
| 1.1) 6" Countermeasure Launch Tube (1)(f)                                       |             | 2014 | FRC -SW / San Diego, CA | WR                                                                               | NAVSEA          | Aug 2014      | Feb 2015                     | 75            | 11,560.00                                                     | Y                      |                               |                   |
| 1.1) 6" Countermeasure Launch Tube (1)(f)                                       |             | 2015 | FRC -SW / San Diego, CA | WR                                                                               | NAVSEA          | Aug 2015      | Aug 2015                     | 109           | 7,293.58                                                      | Y                      |                               |                   |
| 1.1) 6" Countermeasure Launch Tube (1)(f)                                       |             | 2016 | FRC -SW / San Diego, CA | WR                                                                               | NAVSEA          | Aug 2016      | Aug 2016                     | 200           | 5,000.00                                                      | Y                      |                               |                   |
| 1.1) 6" Countermeasure Launch Tube (1)(f)                                       |             | 2017 | FRC -SW / San Diego, CA | WR                                                                               | NAVSEA          | Apr 2017      | Apr 2017                     | 177           | 5,125.00                                                      | Y                      |                               |                   |
| 1.1) 6" Countermeasure Launch Tube (1)(f)                                       |             | 2018 | FRC -SW / San Diego, CA | WR                                                                               | NAVSEA          | Apr 2018      | Apr 2018                     | 125           | 5,770.00                                                      | Y                      |                               |                   |
| 1.2) ADC MK3 (TORPEDO) NEW (2)(f)                                               |             | 2013 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Jun 2013      | Jun 2015                     | 125           | 34,400.00                                                     | Y                      |                               |                   |
| 1.2) ADC MK3 (TORPEDO) NEW (2)(f)                                               |             | 2014 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Dec 2013      | Dec 2015                     | 70            | 33,200.00                                                     | Y                      |                               |                   |
| 1.2) ADC MK3 (TORPEDO) NEW (2)(f)                                               |             | 2015 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Dec 2014      | Dec 2016                     | 52            | 33,326.92                                                     | Y                      |                               |                   |
| 1.2) ADC MK3 (TORPEDO) NEW (2)(f)                                               |             | 2016 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Dec 2015      | Dec 2016                     | 40            | 0.00                                                          | Y                      |                               |                   |
| 1.2) ADC MK3 (TORPEDO) NEW (2)(f)                                               |             | 2017 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Apr 2017      | Apr 2017                     | 35            | 42,657.14                                                     | Y                      |                               |                   |
| 1.2) ADC MK3 (TORPEDO) NEW (2)(f)                                               |             | 2018 | TBD / TBD               | C / TBD                                                                          | NAVSEA          | Jun 2018      | Jun 2018                     | 42            | 41,952.38                                                     | N                      | Jun 2019                      |                   |
| 1.4) MK 3 ADC SLEP (4)(f)                                                       |             | 2015 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Aug 2015      | Aug 2015                     | 88            | 6,022.73                                                      | N                      | Aug 2015                      |                   |
| 1.4) MK 3 ADC SLEP (4)(f)                                                       |             | 2016 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Aug 2016      | Aug 2016                     | 150           | 12,000.00                                                     | N                      | Aug 2017                      |                   |
| 1.4) MK 3 ADC SLEP (4)(f)                                                       |             | 2017 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Jun 2017      | Jun 2017                     | 28            | 16,000.00                                                     | N                      | Jun 2018                      |                   |
| 1.4) MK 3 ADC SLEP (4)(f)                                                       |             | 2018 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Jun 2018      | Jun 2018                     | 20            | 14,850.00                                                     | N                      | Jun 2019                      |                   |
| 1.6) ADC MK 4 SLEP (5)(f)                                                       |             | 2015 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Sep 2015      | Aug 2016                     | 36            | 11,472.22                                                     | Y                      |                               |                   |
| 1.6) ADC MK 4 SLEP (5)(f)                                                       |             | 2016 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Nov 2015      | Oct 2016                     | 50            | 12,000.00                                                     | Y                      |                               |                   |
| 1.6) ADC MK 4 SLEP (5)(f)                                                       |             | 2017 | ULTRA / BRAINTREE, MA   | C / FFP                                                                          | NAVSEA          | Apr 2017      | Oct 2018                     | 12            | 11,750.00                                                     | Y                      |                               |                   |
| <b>2) WM015 3 INCH</b>                                                          |             |      |                         |                                                                                  |                 |               |                              |               |                                                               |                        |                               |                   |
| 2.1) NAE BEACON (6)(f)                                                          |             | 2014 | ULTRA / BRAINTREE, MA   | SS / IDIQ                                                                        | NAVICP          | May 2014      | Apr 2016                     | 670           | 6,604.48                                                      | Y                      |                               |                   |
| 2.1) NAE BEACON (6)(f)                                                          |             | 2015 | ULTRA / BRAINTREE, MA   | SS / IDIQ                                                                        | NAVICP          | Aug 2015      | Jul 2017                     | 808           | 4,445.54                                                      | Y                      |                               |                   |

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| <b>Exhibit P-5a, Procurement History and Planning: PB 2019 Navy</b>             |             |      |                                                                                  |                                      |                  |               |                              |               | <b>Date:</b> February 2018                                    |                        |                               |                   |
|---------------------------------------------------------------------------------|-------------|------|----------------------------------------------------------------------------------|--------------------------------------|------------------|---------------|------------------------------|---------------|---------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |             |      | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                                      |                  |               |                              |               | <b>Aggregated Items:</b><br>Submarine Acoustic Warfare System |                        |                               |                   |
| Item Number / Title [DODIC]                                                     | O<br>C<br>O | FY   | Contractor and Location                                                          | Method/Type<br>or<br>Funding Vehicle | Location of PCO  | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                             | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 2.1) NAE BEACON <sup>(6)(†)</sup>                                               |             | 2016 | ULTRA / BRAINTREE, MA                                                            | SS / IDIQ                            | NAVICP           | May 2016      | Apr 2017                     | 514           | 4,900.00                                                      | Y                      |                               |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2011 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NAVSEA           | May 2011      | May 2013                     | 354           | 5,389.83                                                      | Y                      |                               |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2012 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NAVSEA           | May 2012      | May 2014                     | 808           | 5,476.49                                                      | Y                      |                               |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2014 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NAVSEA           | May 2014      | May 2016                     | 280           | 5,664.29                                                      | Y                      |                               |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2016 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NAVSEA           | Jul 2016      | Jul 2017                     | 88            | 5,802.00                                                      | Y                      |                               |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2017 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NUWC/KEYPORT     | May 2017      | Aug 2017                     | 100           | 6,000.00                                                      | N                      | Jul 2017                      |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2018 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NUWC/KEYPORT     | May 2018      | Aug 2018                     | 100           | 6,185.00                                                      | N                      | May 2019                      |                   |
| 2.2) ADC MK2 <sup>(7)(†)</sup>                                                  |             | 2019 | ULTRA / BRAINTREE, MA                                                            | C / FFP                              | NUWC/KEYPORT     | May 2019      | Aug 2019                     | 509           | 5,941.06                                                      | N                      | Feb 2021                      |                   |
| <b>3) WM022 GAS GENERATOR MK77</b>                                              |             |      |                                                                                  |                                      |                  |               |                              |               |                                                               |                        |                               |                   |
| 3.1) GAS GENERATOR MK77<br>MOD 1 NEW PRODUCTION <sup>(8)(†)</sup>               |             | 2014 | NSWC/INDIAN HEAD<br>/ NSWC INDIAN HEAD                                           | WR                                   | NSWC INDIAN HEAD | Mar 2014      | Mar 2015                     | 250           | 10,508.00                                                     | Y                      |                               |                   |
| 3.1) GAS GENERATOR MK77<br>MOD 1 NEW PRODUCTION <sup>(8)(†)</sup>               |             | 2015 | NSWC/INDIAN HEAD<br>/ NSWC INDIAN HEAD                                           | WR                                   | NSWC INDIAN HEAD | Mar 2015      | Mar 2016                     | 80            | 19,587.00                                                     | Y                      |                               |                   |
| 3.1) GAS GENERATOR MK77<br>MOD 1 NEW PRODUCTION <sup>(8)(†)</sup>               |             | 2017 | NSWC/INDIAN HEAD<br>/ NSWC INDIAN HEAD                                           | WR                                   | NSWC INDIAN HEAD | Mar 2017      | Mar 2018                     | 138           | 20,492.75                                                     | Y                      |                               |                   |
| 3.1) GAS GENERATOR MK77<br>MOD 1 NEW PRODUCTION <sup>(8)(†)</sup>               |             | 2018 | NSWC/INDIAN HEAD<br>/ NSWC INDIAN HEAD                                           | WR                                   | NSWC INDIAN HEAD | Mar 2018      | Sep 2018                     | 80            | 18,975.00                                                     | Y                      |                               |                   |
| 3.1) GAS GENERATOR MK77<br>MOD 1 NEW PRODUCTION <sup>(8)(†)</sup>               |             | 2019 | NSWC/INDIAN HEAD<br>/ NSWC INDIAN HEAD                                           | WR                                   | NSWC INDIAN HEAD | Mar 2019      | Sep 2019                     | 80            | 19,337.50                                                     | Y                      |                               |                   |
| 3.2) Gas Generator MK77 Mod 0<br><sup>(9)(†)</sup>                              |             | 2015 | NSWC/IH / INDIAN HEAD, MD                                                        | WR                                   | NSWC INDIAN HEAD | Mar 2015      | Sep 2015                     | 270           | 7,266.00                                                      | Y                      |                               |                   |
| 3.2) Gas Generator MK77 Mod 0<br><sup>(9)(†)</sup>                              |             | 2016 | NSWC/IH / INDIAN HEAD, MD                                                        | WR                                   | NSWC INDIAN HEAD | Mar 2016      | Sep 2016                     | 300           | 10,911.67                                                     | Y                      |                               |                   |
| 3.2) Gas Generator MK77 Mod 0<br><sup>(9)(†)</sup>                              |             | 2017 | NSWC/IH / INDIAN HEAD, MD                                                        | WR                                   | NSWC INDIAN HEAD | Mar 2017      | Sep 2017                     | 41            | 12,390.24                                                     | Y                      |                               |                   |
| 3.2) Gas Generator MK77 Mod 0<br><sup>(9)(†)</sup>                              |             | 2018 | NSWC/IH / INDIAN HEAD, MD                                                        | WR                                   | NSWC INDIAN HEAD | Mar 2018      | Sep 2018                     | 40            | 12,463.00                                                     | Y                      |                               |                   |
| 3.2) Gas Generator MK77 Mod 0<br><sup>(9)(†)</sup>                              |             | 2019 | NSWC/IH / INDIAN HEAD, MD                                                        | WR                                   | NSWC INDIAN HEAD | Oct 2018      | Apr 2019                     | 40            | 12,700.00                                                     | Y                      |                               |                   |
| <sup>(†)</sup> indicates the presence of a P-21                                 |             |      |                                                                                  |                                      |                  |               |                              |               |                                                               |                        |                               |                   |

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|--------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|------------------|-----|-----|--------------------|---------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|------------------|-----|-----|--------------------|-----|--------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|--|---------|-----|--|--|--|
| Exhibit P-21, Production Schedule: PB 2019 Navy                          |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     | Date: February 2018                                    |     |     |     |     |     |     |     |  |         |     |  |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |       |      |         |          |                            |                     |                  |     |     |                    | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |     |     |     |     |     |     |                  |     |     |                    |     | Aggregated Items:<br>Submarine Acoustic Warfare System |     |     |     |     |     |     |     |  |         |     |  |  |  |
| Items<br>(Units in Each)                                                 |       |      |         |          |                            |                     | Fiscal Year 2011 |     |     |                    |                                                                           |     |     |     |     |     |     | Fiscal Year 2012 |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  | BALANCE |     |  |  |  |
| OCO #                                                                    | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2010 | BAL DUE AS OF 1 OCT |                  |     |     | Calendar Year 2011 |                                                                           |     |     |     |     |     |     |                  |     |     | Calendar Year 2012 |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          |       |      |         |          |                            |                     | OCT              | NOV | DEC | JAN                | FEB                                                                       | MAR | APR | MAY | JUN | JUL | AUG | SEP              | OCT | NOV | DEC                | JAN | FEB                                                    | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |         |     |  |  |  |
| 1) WM014 6 INCH                                                          |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
| 1.1) 6" Countermeasure Launch Tube <sup>(1)</sup>                        |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
| Prior Years Deliveries: 444                                              |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          | 1     | 2014 | NAVY    | 75       | 0                          | 75                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 75  |  |  |  |
|                                                                          | 1     | 2015 | NAVY    | 109      | 0                          | 109                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 109 |  |  |  |
|                                                                          | 1     | 2016 | NAVY    | 200      | 0                          | 200                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 200 |  |  |  |
|                                                                          | 1     | 2017 | NAVY    | 177      | 0                          | 177                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 177 |  |  |  |
|                                                                          | 1     | 2018 | NAVY    | 125      | 0                          | 125                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 125 |  |  |  |
| 1.2) ADC MK3 (TORPEDO) NEW <sup>(2)</sup>                                |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
| Prior Years Deliveries: 285                                              |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          | 2     | 2013 | NAVY    | 125      | 0                          | 125                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 125 |  |  |  |
|                                                                          | 2     | 2014 | NAVY    | 70       | 0                          | 70                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 70  |  |  |  |
|                                                                          | 2     | 2015 | NAVY    | 52       | 0                          | 52                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 52  |  |  |  |
|                                                                          | 2     | 2016 | NAVY    | 40       | 0                          | 40                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 40  |  |  |  |
|                                                                          | 2     | 2017 | NAVY    | 35       | 0                          | 35                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 35  |  |  |  |
|                                                                          | 3     | 2018 | NAVY    | 42       | 0                          | 42                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 42  |  |  |  |
| 1.4) MK 3 ADC SLEP <sup>(4)</sup>                                        |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          | 4     | 2015 | NAVY    | 88       | 0                          | 88                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 88  |  |  |  |
|                                                                          | 4     | 2016 | NAVY    | 150      | 0                          | 150                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 150 |  |  |  |
|                                                                          | 4     | 2017 | NAVY    | 28       | 0                          | 28                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 28  |  |  |  |
|                                                                          | 4     | 2018 | NAVY    | 20       | 0                          | 20                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 20  |  |  |  |
| 1.6) ADC MK 4 SLEP <sup>(5)</sup>                                        |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          | 5     | 2015 | NAVY    | 36       | 0                          | 36                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 36  |  |  |  |
|                                                                          | 5     | 2016 | NAVY    | 50       | 0                          | 50                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 50  |  |  |  |
|                                                                          | 5     | 2017 | NAVY    | 12       | 0                          | 12                  |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 12  |  |  |  |
| 2) WM015 3 INCH                                                          |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
| 2.1) NAE BEACON <sup>(6)</sup>                                           |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
| Prior Years Deliveries: 429                                              |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          | 6     | 2014 | NAVY    | 670      | 0                          | 670                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 670 |  |  |  |
|                                                                          | 6     | 2015 | NAVY    | 808      | 0                          | 808                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 808 |  |  |  |
|                                                                          | 6     | 2016 | NAVY    | 514      | 0                          | 514                 |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         | 514 |  |  |  |
| 2.2) ADC MK2 <sup>(7)</sup>                                              |       |      |         |          |                            |                     |                  |     |     |                    |                                                                           |     |     |     |     |     |     |                  |     |     |                    |     |                                                        |     |     |     |     |     |     |     |  |         |     |  |  |  |
|                                                                          |       |      |         |          |                            |                     | OCT              | NOV | DEC | JAN                | FEB                                                                       | MAR | APR | MAY | JUN | JUL | AUG | SEP              | OCT | NOV | DEC                | JAN | FEB                                                    | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |         |     |  |  |  |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |       |      |         |          |                            |                     |                                                                           |     |     |     |     |     |     |     |     |     |                    | Date: February 2018 |     |                                                        |     |     |     |     |     |     |         |     |     |     |     |
|--------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|---------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|---------------------|-----|--------------------------------------------------------|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |       |      |         |          |                            |                     | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |     |     |     |     |     |     |     |     |     |                    |                     |     | Aggregated Items:<br>Submarine Acoustic Warfare System |     |     |     |     |     |     |         |     |     |     |     |
| Items<br>(Units in Each)                                                 |       |      |         |          |                            |                     | Fiscal Year 2011                                                          |     |     |     |     |     |     |     |     |     | Fiscal Year 2012   |                     |     |                                                        |     |     |     |     |     |     | BALANCE |     |     |     |     |
| OCO                                                                      | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2010 | BAL DUE AS OF 1 OCT | Calendar Year 2011                                                        |     |     |     |     |     |     |     |     |     | Calendar Year 2012 |                     |     |                                                        |     |     |     |     |     |     |         |     |     |     |     |
|                                                                          |       |      |         |          |                            |                     | OCT                                                                       | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG                | SEP                 | OCT | NOV                                                    | DEC | JAN | FEB | MAR | APR | MAY |         | JUN | JUL | AUG | SEP |
|                                                                          | 7     | 2011 | NAVY    | 354      | 0                          | 354                 |                                                                           |     |     |     |     |     |     | A - | -   | -   | -                  | -                   | -   | -                                                      | -   | -   | -   | -   | -   | -   | -       | -   | -   | 354 |     |
|                                                                          | 7     | 2012 | NAVY    | 808      | 0                          | 808                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     | A - | -       | -   | -   | -   | 808 |
|                                                                          | 7     | 2014 | NAVY    | 280      | 0                          | 280                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 280 |     |
|                                                                          | 7     | 2016 | NAVY    | 88       | 0                          | 88                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 88  |     |
|                                                                          | 7     | 2017 | NAVY    | 100      | 0                          | 100                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 100 |     |
|                                                                          | 7     | 2018 | NAVY    | 100      | 0                          | 100                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 100 |     |
|                                                                          | 7     | 2019 | NAVY    | 509      | 0                          | 509                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 509 |     |
| 3) WM022 GAS GENERATOR MK77                                              |       |      |         |          |                            |                     |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     |     |     |
| 3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION <sup>(8)</sup>              |       |      |         |          |                            |                     |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     |     |     |
| Prior Years Deliveries: 1086                                             |       |      |         |          |                            |                     |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     |     |     |
|                                                                          | 8     | 2014 | NAVY    | 250      | 0                          | 250                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 250 |     |
|                                                                          | 8     | 2015 | NAVY    | 80       | 0                          | 80                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 80  |     |
|                                                                          | 8     | 2017 | NAVY    | 138      | 0                          | 138                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 138 |     |
|                                                                          | 8     | 2018 | NAVY    | 80       | 0                          | 80                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 80  |     |
|                                                                          | 8     | 2019 | NAVY    | 80       | 0                          | 80                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 80  |     |
| 3.2) Gas Generator MK77 Mod 0 <sup>(9)</sup>                             |       |      |         |          |                            |                     |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     |     |     |
|                                                                          | 9     | 2015 | NAVY    | 270      | 0                          | 270                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 270 |     |
|                                                                          | 9     | 2016 | NAVY    | 300      | 0                          | 300                 |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 300 |     |
|                                                                          | 9     | 2017 | NAVY    | 41       | 0                          | 41                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 41  |     |
|                                                                          | 9     | 2018 | NAVY    | 40       | 0                          | 40                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 40  |     |
|                                                                          | 9     | 2019 | NAVY    | 40       | 0                          | 40                  |                                                                           |     |     |     |     |     |     |     |     |     |                    |                     |     |                                                        |     |     |     |     |     |     |         |     |     | 40  |     |
|                                                                          |       |      |         |          |                            |                     | OCT                                                                       | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG                | SEP                 | OCT | NOV                                                    | DEC | JAN | FEB | MAR | APR | MAY | JUN     | JUL | AUG | SEP |     |

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|--------------------------------------------------------------------------|------|------|---------|----------|--------------------------------------------|------------------------------|--------------------|---------|-----|---------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|--------------------|-----|-----|--------------------------------------------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|---|-----|---|---|-----|--|--|--|--|--|--|--|--|--|----|-----|
| Exhibit P-21, Production Schedule: PB 2019 Navy                          |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        | Date: February 2018 |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |      |      |         |          |                                            |                              |                    |         |     | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |     |     |     |     |     |     |                    |     |     | Aggregated Items:<br>Submarine Acoustic Warfare System |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| Items<br>(Units in Each)                                                 |      |      |         |          |                                            |                              | Fiscal Year 2013   |         |     |                                                                           |     |     |     |     |     |     | Fiscal Year 2014   |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     | BALANCE |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| OCO#                                                                     | MFR# | FY   | SERVICE | PROC QTY | ACCEP<br>T<br>PRIOR<br>TO 1<br>OCT<br>2012 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2013 |         |     |                                                                           |     |     |     |     |     |     | Calendar Year 2014 |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          |      |      |         |          |                                            |                              | OC<br>T            | NO<br>V | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG                | SEP | OCT | NOV                                                    | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| 1) WM014 6 INCH                                                          |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| 1.1) 6" Countermeasure Launch Tube <sup>(1)</sup>                        |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| Prior Years Deliveries: 444                                              |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 1    | 2014 | NAVY    | 75       | 0                                          | 75                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     | A -     | - | 75  |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 1    | 2015 | NAVY    | 109      | 0                                          | 109                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   | 109 |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 1    | 2016 | NAVY    | 200      | 0                                          | 200                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   | 200 |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 1    | 2017 | NAVY    | 177      | 0                                          | 177                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   | 177 |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 1    | 2018 | NAVY    | 125      | 0                                          | 125                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   | 125 |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| 1.2) ADC MK3 (TORPEDO) NEW <sup>(2)</sup>                                |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| Prior Years Deliveries: 285                                              |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 2    | 2013 | NAVY    | 125      | 0                                          | 125                          |                    |         |     |                                                                           |     |     |     |     |     |     | A -                | -   | -   | -                                                      | -                   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -       | - | 125 |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 2    | 2014 | NAVY    | 70       | 0                                          | 70                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     | A - | -   | -   | -   | -       | - | -   | - | - | 70  |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 2    | 2015 | NAVY    | 52       | 0                                          | 52                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 52  |
|                                                                          | 2    | 2016 | NAVY    | 40       | 0                                          | 40                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 40  |
|                                                                          | 2    | 2017 | NAVY    | 35       | 0                                          | 35                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 35  |
|                                                                          | 3    | 2018 | NAVY    | 42       | 0                                          | 42                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 42  |
| 1.4) MK 3 ADC SLEP <sup>(4)</sup>                                        |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 4    | 2015 | NAVY    | 88       | 0                                          | 88                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  | 88 |     |
|                                                                          | 4    | 2016 | NAVY    | 150      | 0                                          | 150                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 150 |
|                                                                          | 4    | 2017 | NAVY    | 28       | 0                                          | 28                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 28  |
|                                                                          | 4    | 2018 | NAVY    | 20       | 0                                          | 20                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 20  |
| 1.6) ADC MK 4 SLEP <sup>(5)</sup>                                        |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 5    | 2015 | NAVY    | 36       | 0                                          | 36                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 36  |
|                                                                          | 5    | 2016 | NAVY    | 50       | 0                                          | 50                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 50  |
|                                                                          | 5    | 2017 | NAVY    | 12       | 0                                          | 12                           |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 12  |
| 2) WM015 3 INCH                                                          |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| 2.1) NAE BEACON <sup>(6)</sup>                                           |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
| Prior Years Deliveries: 429                                              |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 6    | 2014 | NAVY    | 670      | 0                                          | 670                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     | A -     | - | -   | - | - | 670 |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          | 6    | 2015 | NAVY    | 808      | 0                                          | 808                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 808 |
|                                                                          | 6    | 2016 | NAVY    | 514      | 0                                          | 514                          |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    | 514 |
| 2.2) ADC MK2 <sup>(7)</sup>                                              |      |      |         |          |                                            |                              |                    |         |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |                     |     |     |     |     |     |     |     |     |     |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |
|                                                                          |      |      |         |          |                                            |                              | OC<br>T            | NO<br>V | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG                | SEP | OCT | NOV                                                    | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |         |   |     |   |   |     |  |  |  |  |  |  |  |  |  |    |     |



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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     | Date: February 2018                                    |     |                    |     |     |     |     |         |     |     |     |     |     |
|--------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|--------------------|-----|-----|---------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|------------------|-----|-----|--------------------------------------------------------|-----|--------------------|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |       |      |         |          |                            |                     |                    |     |     | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |     |     |     |     |     |     |                  |     |     | Aggregated Items:<br>Submarine Acoustic Warfare System |     |                    |     |     |     |     |         |     |     |     |     |     |
| Items<br>(Units in Each)                                                 |       |      |         |          |                            |                     | Fiscal Year 2013   |     |     |                                                                           |     |     |     |     |     |     | Fiscal Year 2014 |     |     |                                                        |     |                    |     |     |     |     | BALANCE |     |     |     |     |     |
| OCO                                                                      | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2012 | BAL DUE AS OF 1 OCT | Calendar Year 2013 |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     | Calendar Year 2014 |     |     |     |     |         |     |     |     |     |     |
|                                                                          |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG              | SEP | OCT | NOV                                                    | DEC | JAN                | FEB | MAR | APR | MAY |         | JUN | JUL | AUG | SEP |     |
|                                                                          | 7     | 2011 | NAVY    | 354      | 0                          | 354                 | -                  | -   | -   | -                                                                         | -   | -   | -   | 30  | 30  | 30  | 30               | 30  | 30  | 29                                                     | 29  | 29                 | 29  | 29  | 29  | 29  | 29      | 29  | 29  | 29  | 29  | 0   |
|                                                                          | 7     | 2012 | NAVY    | 808      | 0                          | 808                 | -                  | -   | -   | -                                                                         | -   | -   | -   | -   | -   | -   | -                | -   | -   | -                                                      | -   | -                  | -   | -   | -   | -   | 67      | 67  | 67  | 67  | 67  | 473 |
|                                                                          | 7     | 2014 | NAVY    | 280      | 0                          | 280                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     | A -     | -   | -   | -   | -   | 280 |
|                                                                          | 7     | 2016 | NAVY    | 88       | 0                          | 88                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 88  |     |
|                                                                          | 7     | 2017 | NAVY    | 100      | 0                          | 100                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 100 |     |
|                                                                          | 7     | 2018 | NAVY    | 100      | 0                          | 100                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 100 |     |
|                                                                          | 7     | 2019 | NAVY    | 509      | 0                          | 509                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 509 |     |
| 3) WM022 GAS GENERATOR MK77                                              |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     |     |     |
| 3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION <sup>(8)</sup>              |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     |     |     |
| Prior Years Deliveries: 1086                                             |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     |     |     |
|                                                                          | 8     | 2014 | NAVY    | 250      | 0                          | 250                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     | A - | -       | -   | -   | -   | -   | 250 |
|                                                                          | 8     | 2015 | NAVY    | 80       | 0                          | 80                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 80  |     |
|                                                                          | 8     | 2017 | NAVY    | 138      | 0                          | 138                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 138 |     |
|                                                                          | 8     | 2018 | NAVY    | 80       | 0                          | 80                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 80  |     |
|                                                                          | 8     | 2019 | NAVY    | 80       | 0                          | 80                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 80  |     |
| 3.2) Gas Generator MK77 Mod 0 <sup>(9)</sup>                             |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     |     |     |
|                                                                          | 9     | 2015 | NAVY    | 270      | 0                          | 270                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 270 |     |
|                                                                          | 9     | 2016 | NAVY    | 300      | 0                          | 300                 |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 300 |     |
|                                                                          | 9     | 2017 | NAVY    | 41       | 0                          | 41                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 41  |     |
|                                                                          | 9     | 2018 | NAVY    | 40       | 0                          | 40                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 40  |     |
|                                                                          | 9     | 2019 | NAVY    | 40       | 0                          | 40                  |                    |     |     |                                                                           |     |     |     |     |     |     |                  |     |     |                                                        |     |                    |     |     |     |     |         |     |     |     | 40  |     |
|                                                                          |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG              | SEP | OCT | NOV                                                    | DEC | JAN                | FEB | MAR | APR | MAY | JUN     | JUL | AUG | SEP |     |     |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             | Date: February 2018                                    |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|--------------------------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|------------------|-------------|-------------|---------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|--------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----|-----|---------------------------------|-----|----|-----|---|-----|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |                  |      |         |             |                                        |                              |                  |             |             | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |             |             |             |             |             |             |             |             |                  |             |             | Aggregated Items:<br>Submarine Acoustic Warfare System |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
| Items<br>(Units in Each)                                                 |                  |      |         |             |                                        |                              | Fiscal Year 2015 |             |             |                                                                           |             |             |             |             |             |             |             |             | Fiscal Year 2016 |             |             |                                                        |             |             |             |             |             |             |             |             |    |     | B<br>A<br>L<br>A<br>N<br>C<br>E |     |    |     |   |     |
| O<br>C<br>C<br>#                                                         | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2014 | BAL<br>DUE<br>AS OF<br>1 OCT |                  |             |             | Calendar Year 2015                                                        |             |             |             |             |             |             |             |             |                  |             |             | Calendar Year 2016                                     |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                                               | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                            | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |    |     |                                 |     |    |     |   |     |
| 1) WM014 6 INCH                                                          |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
| 1.1) 6" Countermeasure Launch Tube <sup>(1)</sup>                        |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
| Prior Years Deliveries: 444                                              |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          | 1                | 2014 | NAVY    | 75          | 0                                      | 75                           | -                | -           | -           | -                                                                         | 6           | 6           | 6           | 6           | 6           | 6           | 6           | 6           | 7                | 7           | 7           |                                                        |             |             |             |             |             |             |             |             |    | 0   |                                 |     |    |     |   |     |
|                                                                          | 1                | 2015 | NAVY    | 109         | 0                                      | 109                          |                  |             |             |                                                                           |             |             |             |             |             |             | A9          | 9           | 9                | 9           | 9           | 9                                                      | 9           | 9           | 9           | 9           | 9           | 10          |             |             |    | 0   |                                 |     |    |     |   |     |
|                                                                          | 1                | 2016 | NAVY    | 200         | 0                                      | 200                          |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    | A16 | 16                              | 168 |    |     |   |     |
|                                                                          | 1                | 2017 | NAVY    | 177         | 0                                      | 177                          |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 177 |    |     |   |     |
|                                                                          | 1                | 2018 | NAVY    | 125         | 0                                      | 125                          |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 125 |    |     |   |     |
| 1.2) ADC MK3 (TORPEDO) NEW <sup>(2)</sup>                                |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
| Prior Years Deliveries: 285                                              |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          | 2                | 2013 | NAVY    | 125         | 0                                      | 125                          | -                | -           | -           | -                                                                         | -           | -           | -           | -           | 10          | 10          | 10          | 10          | 10               | 10          | 10          | 11                                                     | 11          | 11          | 11          | 11          |             |             |             |             |    | 0   |                                 |     |    |     |   |     |
|                                                                          | 2                | 2014 | NAVY    | 70          | 0                                      | 70                           | -                | -           | -           | -                                                                         | -           | -           | -           | -           | -           | -           | -           | -           | -                | -           | 6           | 6                                                      | 6           | 6           | 6           | 6           | 6           | 6           | 6           | 6           | 10 |     |                                 |     |    |     |   |     |
|                                                                          | 2                | 2015 | NAVY    | 52          | 0                                      | 52                           | A -              |             |             |                                                                           |             | -           | -           | -           | -           | -           | -           | -           | -                | -           | -           | -                                                      | -           | -           | -           | -           | -           | -           | -           | -           | 52 |     |                                 |     |    |     |   |     |
|                                                                          | 2                | 2016 | NAVY    | 40          | 0                                      | 40                           | A -              |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             | -           | -           | -           | -           | -           | -           | -  | -   | -                               | -   | -  | -   | - | 40  |
|                                                                          | 2                | 2017 | NAVY    | 35          | 0                                      | 35                           |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 35  |    |     |   |     |
|                                                                          | 3                | 2018 | NAVY    | 42          | 0                                      | 42                           |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 42  |    |     |   |     |
| 1.4) MK 3 ADC SLEP <sup>(4)</sup>                                        |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          | 4                | 2015 | NAVY    | 88          | 0                                      | 88                           |                  |             |             |                                                                           |             |             |             |             |             |             | A8          | 7           | 7                | 7           | 7           | 7                                                      | 7           | 7           | 7           | 7           | 8           | 8           | 8           |             |    |     | 0                               |     |    |     |   |     |
|                                                                          | 4                | 2016 | NAVY    | 150         | 0                                      | 150                          |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | A13 | 13 | 124 |   |     |
|                                                                          | 4                | 2017 | NAVY    | 28          | 0                                      | 28                           |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 28  |    |     |   |     |
|                                                                          | 4                | 2018 | NAVY    | 20          | 0                                      | 20                           |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 20  |    |     |   |     |
| 1.6) ADC MK 4 SLEP <sup>(5)</sup>                                        |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          | 5                | 2015 | NAVY    | 36          | 0                                      | 36                           |                  |             |             |                                                                           |             |             |             |             |             |             | A -         | -           | -                | -           | -           | -                                                      | -           | -           | -           | -           | -           | -           | -           | -           | -  | 3   | 3                               | 30  |    |     |   |     |
|                                                                          | 5                | 2016 | NAVY    | 50          | 0                                      | 50                           |                  |             |             |                                                                           |             |             |             |             |             |             | A -         |             |                  |             |             | -                                                      | -           | -           | -           | -           | -           | -           | -           | -           | -  | -   | -                               | -   | 50 |     |   |     |
|                                                                          | 5                | 2017 | NAVY    | 12          | 0                                      | 12                           |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 | 12  |    |     |   |     |
| 2) WM015 3 INCH                                                          |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
| 2.1) NAE BEACON <sup>(6)</sup>                                           |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
| Prior Years Deliveries: 429                                              |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          | 6                | 2014 | NAVY    | 670         | 0                                      | 670                          | -                | -           | -           | -                                                                         | -           | -           | -           | -           | -           | -           | -           | -           | -                | -           | -           | -                                                      | -           | 55          | 55          | 56          | 56          | 56          | 56          | 336         |    |     |                                 |     |    |     |   |     |
|                                                                          | 6                | 2015 | NAVY    | 808         | 0                                      | 808                          |                  |             |             |                                                                           |             |             |             |             |             |             | A -         | -           | -                | -           | -           | -                                                      | -           | -           | -           | -           | -           | -           | -           | -           | -  | -   | 808                             |     |    |     |   |     |
|                                                                          | 6                | 2016 | NAVY    | 514         | 0                                      | 514                          |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             | A -         |             |             |             |    | -   | -                               | -   | -  | -   | - | 514 |
| 2.2) ADC MK2 <sup>(7)</sup>                                              |                  |      |         |             |                                        |                              |                  |             |             |                                                                           |             |             |             |             |             |             |             |             |                  |             |             |                                                        |             |             |             |             |             |             |             |             |    |     |                                 |     |    |     |   |     |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                                               | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                            | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |    |     |                                 |     |    |     |   |     |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     | Date: February 2018                                    |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
|--------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|--------------------|-----|-----|---------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|--------------------|-----|-----|--------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|----|-----|----|----|-----|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |       |      |         |          |                            |                     |                    |     |     | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |     |     |     |     |     |     |                    |     |     | Aggregated Items:<br>Submarine Acoustic Warfare System |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
| Items<br>(Units in Each)                                                 |       |      |         |          |                            |                     | Fiscal Year 2015   |     |     |                                                                           |     |     |     |     |     |     | Fiscal Year 2016   |     |     |                                                        |     |     |     |     |     |     |     |     |     | BALANCE |     |    |     |    |    |     |
| OCO                                                                      | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2014 | BAL DUE AS OF 1 OCT | Calendar Year 2015 |     |     |                                                                           |     |     |     |     |     |     | Calendar Year 2016 |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
|                                                                          |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG                | SEP | OCT | NOV                                                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG |         | SEP |    |     |    |    |     |
|                                                                          | 7     | 2011 | NAVY    | 354      | 354                        | 0                   |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 0   |    |    |     |
|                                                                          | 7     | 2012 | NAVY    | 808      | 335                        | 473                 | 67                 | 67  | 67  | 68                                                                        | 68  | 68  | 68  |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 0   |    |    |     |
|                                                                          | 7     | 2014 | NAVY    | 280      | 0                          | 280                 | -                  | -   | -   | -                                                                         | -   | -   | -   | -   | -   | -   | -                  | -   | -   | -                                                      | -   | -   | -   | -   | -   | 23  | 23  | 23  | 23  | 23      | 165 |    |     |    |    |     |
|                                                                          | 7     | 2016 | NAVY    | 88       | 0                          | 88                  |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 88  |    |    |     |
|                                                                          | 7     | 2017 | NAVY    | 100      | 0                          | 100                 |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 100 |    |    |     |
|                                                                          | 7     | 2018 | NAVY    | 100      | 0                          | 100                 |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 100 |    |    |     |
|                                                                          | 7     | 2019 | NAVY    | 509      | 0                          | 509                 |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 509 |    |    |     |
| 3) WM022 GAS GENERATOR MK77                                              |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
| 3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION <sup>(8)</sup>              |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
| Prior Years Deliveries: 1086                                             |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
|                                                                          | 8     | 2014 | NAVY    | 250      | 0                          | 250                 | -                  | -   | -   | -                                                                         | -   | 21  | 21  | 21  | 21  | 21  | 21                 | 21  | 21  | 21                                                     | 20  | 20  |     |     |     |     |     |     |     |         |     |    | 0   |    |    |     |
|                                                                          | 8     | 2015 | NAVY    | 80       | 0                          | 80                  |                    |     |     |                                                                           |     |     |     |     |     |     | A -                | -   | -   | -                                                      | -   | -   | -   | -   | -   | -   | 7   | 7   | 7   | 7       | 7   | 7  | 7   | 31 |    |     |
|                                                                          | 8     | 2017 | NAVY    | 138      | 0                          | 138                 |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 138 |    |    |     |
|                                                                          | 8     | 2018 | NAVY    | 80       | 0                          | 80                  |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 80  |    |    |     |
|                                                                          | 8     | 2019 | NAVY    | 80       | 0                          | 80                  |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 80  |    |    |     |
| 3.2) Gas Generator MK77 Mod 0 <sup>(9)</sup>                             |       |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    |     |    |    |     |
|                                                                          | 9     | 2015 | NAVY    | 270      | 0                          | 270                 |                    |     |     |                                                                           |     |     |     |     |     |     | A -                | -   | -   | -                                                      | -   | -   | 23  | 23  | 23  | 23  | 23  | 23  | 22  | 22      | 22  | 22 | 22  | 22 | 0  |     |
|                                                                          | 9     | 2016 | NAVY    | 300      | 0                          | 300                 |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     | A - | -   | -       | -   | -  | -   | -  | 25 | 275 |
|                                                                          | 9     | 2017 | NAVY    | 41       | 0                          | 41                  |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 41  |    |    |     |
|                                                                          | 9     | 2018 | NAVY    | 40       | 0                          | 40                  |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 40  |    |    |     |
|                                                                          | 9     | 2019 | NAVY    | 40       | 0                          | 40                  |                    |     |     |                                                                           |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |         |     |    | 40  |    |    |     |
|                                                                          |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG                | SEP | OCT | NOV                                                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP     |     |    |     |    |    |     |

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|--------------------------------------------------------------------------|------|------|---------|----------|----------------------------|---------------------|--------------------|-----|-----|---------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|--------------------|-----|-----|--------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|---------|---|---|----|--|--|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |      |      |         |          |                            |                     |                    |     |     | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |     |     |     |     |     |     |     |                    |     |     | Aggregated Items:<br>Submarine Acoustic Warfare System |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| Items<br>(Units in Each)                                                 |      |      |         |          |                            |                     | Fiscal Year 2017   |     |     |                                                                           |     |     |     |     |     |     |     | Fiscal Year 2018   |     |     |                                                        |     |     |     |     |     |     |     |     |     |    | BALANCE |   |   |    |  |  |  |  |  |
| OCO#                                                                     | MFR# | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2016 | BAL DUE AS OF 1 OCT | Calendar Year 2017 |     |     |                                                                           |     |     |     |     |     |     |     | Calendar Year 2018 |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          |      |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP                | OCT | NOV | DEC                                                    | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |    |         |   |   |    |  |  |  |  |  |
|                                                                          |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| 1) WM014 6 INCH                                                          |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| 1.1) 6" Countermeasure Launch Tube <sup>(1)</sup>                        |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| Prior Years Deliveries: 444                                              |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 1    | 2014 | NAVY    | 75       | 75                         | 0                   |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 1    | 2015 | NAVY    | 109      | 109                        | 0                   |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 1    | 2016 | NAVY    | 200      | 32                         | 168                 | 16                 | 16  | 17  | 17                                                                        | 17  | 17  | 17  | 17  | 17  |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 1    | 2017 | NAVY    | 177      | 0                          | 177                 |                    |     |     |                                                                           |     |     |     |     |     |     | A14 | 14                 | 14  | 15  | 15                                                     | 15  | 15  | 15  | 15  | 15  | 15  |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 1    | 2018 | NAVY    | 125      | 0                          | 125                 |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     | A10 | 10  | 10  | 10  | 10  | 10  | 10 | 10      |   |   |    |  |  |  |  |  |
| 1.2) ADC MK3 (TORPEDO) NEW <sup>(2)</sup>                                |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| Prior Years Deliveries: 285                                              |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 2    | 2013 | NAVY    | 125      | 125                        | 0                   |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 2    | 2014 | NAVY    | 70       | 60                         | 10                  | 5                  | 5   |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 2    | 2015 | NAVY    | 52       | 0                          | 52                  | -                  | -   | 4   | 4                                                                         | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 6                  | 6   |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 2    | 2016 | NAVY    | 40       | 0                          | 40                  | -                  | -   | 3   | 3                                                                         | 3   | 3   | 3   | 3   | 3   | 4   | 4   | 4                  | 4   |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 2    | 2017 | NAVY    | 35       | 0                          | 35                  |                    |     |     |                                                                           |     |     |     |     |     |     | A3  | 3                  | 3   | 3   | 3                                                      | 3   | 3   | 3   | 3   | 3   | 2   |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 3    | 2018 | NAVY    | 42       | 0                          | 42                  |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     | A3  | 3   | 3   | 3   | 3   |    |         |   |   |    |  |  |  |  |  |
| 1.4) MK 3 ADC SLEP <sup>(4)</sup>                                        |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 4    | 2015 | NAVY    | 88       | 88                         | 0                   |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 4    | 2016 | NAVY    | 150      | 26                         | 124                 | 13                 | 13  | 13  | 13                                                                        | 12  | 12  | 12  | 12  | 12  | 12  |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 4    | 2017 | NAVY    | 28       | 0                          | 28                  |                    |     |     |                                                                           |     |     |     |     |     |     | A7  | 7                  | 7   | 7   |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 4    | 2018 | NAVY    | 20       | 0                          | 20                  |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     | A4  | 4   | 4   | 4   | 4   |    |         |   |   |    |  |  |  |  |  |
| 1.6) ADC MK 4 SLEP <sup>(5)</sup>                                        |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 5    | 2015 | NAVY    | 36       | 6                          | 30                  | 3                  | 3   | 3   | 3                                                                         | 3   | 3   | 3   | 3   | 3   |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 5    | 2016 | NAVY    | 50       | 0                          | 50                  | 4                  | 4   | 4   | 4                                                                         | 4   | 4   | 4   | 4   | 4   | 4   | 5   | 5                  |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 5    | 2017 | NAVY    | 12       | 0                          | 12                  |                    |     |     |                                                                           |     |     |     |     |     |     | A - | -                  | -   | -   | -                                                      | -   | -   | -   | -   | -   | -   | -   | -   | -   | -  | -       | - | - | 12 |  |  |  |  |  |
| 2) WM015 3 INCH                                                          |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| 2.1) NAE BEACON <sup>(6)</sup>                                           |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| Prior Years Deliveries: 429                                              |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 6    | 2014 | NAVY    | 670      | 334                        | 336                 | 56                 | 56  | 56  | 56                                                                        | 56  | 56  |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 6    | 2015 | NAVY    | 808      | 0                          | 808                 | -                  | -   | -   | -                                                                         | -   | -   | -   | -   | 67  | 67  | 67  | 67                 | 67  | 67  | 67                                                     | 67  | 67  | 68  | 68  | 68  | 68  |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          | 6    | 2016 | NAVY    | 514      | 0                          | 514                 | -                  | -   | -   | -                                                                         | -   | -   | 66  | 66  | 66  | 66  | 67  | 67                 | 67  | 49  |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
| 2.2) ADC MK2 <sup>(7)</sup>                                              |      |      |         |          |                            |                     |                    |     |     |                                                                           |     |     |     |     |     |     |     |                    |     |     |                                                        |     |     |     |     |     |     |     |     |     |    |         |   |   |    |  |  |  |  |  |
|                                                                          |      |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP                | OCT | NOV | DEC                                                    | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |    |         |   |   |    |  |  |  |  |  |

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|--------------------------------------------------------------------------|------------------|------|---------|-------------|---------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----|---|---------------------------------|---|-----|----|--|----|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |                  |      |         |             |                                                                                       |                              | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |             |             |             |             |             |             |             |             |             |             |             | Aggregated Items:<br>Submarine Acoustic Warfare System |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   |     |    |  |    |
| Items<br>(Units in Each)                                                 |                  |      |         |             |                                                                                       |                              | Fiscal Year 2017                                                          |             |             |             |             |             |             |             |             |             |             |             | Fiscal Year 2018                                       |             |             |             |             |             |             |             |             |             |             |             |    |   | B<br>A<br>L<br>A<br>N<br>C<br>E |   |     |    |  |    |
| O<br>C<br>C<br>O                                                         | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEP<br>T<br>P<br>R<br>I<br>O<br>R<br>T<br>O<br>1<br>O<br>C<br>T<br>2<br>0<br>1<br>6 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2017                                                        |             |             |             |             |             |             |             |             |             |             |             | Calendar Year 2018                                     |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   |     |    |  |    |
|                                                                          |                  |      |         |             |                                                                                       |                              | O<br>C<br>T                                                               | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T                                            | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |    |   |                                 |   |     |    |  |    |
|                                                                          | 7                | 2011 | NAVY    | 354         | 354                                                                                   | 0                            |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 0   |    |  |    |
|                                                                          | 7                | 2012 | NAVY    | 808         | 808                                                                                   | 0                            |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 0   |    |  |    |
|                                                                          | 7                | 2014 | NAVY    | 280         | 115                                                                                   | 165                          | 23                                                                        | 23          | 23          | 24          | 24          | 24          | 24          |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             | 0           |             |    |   |                                 |   |     |    |  |    |
|                                                                          | 7                | 2016 | NAVY    | 88          | 0                                                                                     | 88                           | -                                                                         | -           | -           | -           | -           | -           | -           | -           | 7           | 7           | 7           | 7           | 7                                                      | 7           | 7           | 8           | 8           | 8           | 8           |             |             |             |             |             | 0  |   |                                 |   |     |    |  |    |
|                                                                          | 7                | 2017 | NAVY    | 100         | 0                                                                                     | 100                          |                                                                           |             |             |             |             |             |             | A -         | -           | -           | 8           | 8           | 8                                                      | 8           | 8           | 8           | 8           | 9           | 9           | 9           | 9           |             |             |             | 0  |   |                                 |   |     |    |  |    |
|                                                                          | 7                | 2018 | NAVY    | 100         | 0                                                                                     | 100                          |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             | A -         | -           | -           | 8  | 8 |                                 |   |     |    |  | 84 |
|                                                                          | 7                | 2019 | NAVY    | 509         | 0                                                                                     | 509                          |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 509 |    |  |    |
| 3) WM022 GAS GENERATOR MK77                                              |                  |      |         |             |                                                                                       |                              |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   |     |    |  |    |
| 3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION <sup>(8)</sup>              |                  |      |         |             |                                                                                       |                              |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   |     |    |  |    |
| Prior Years Deliveries: 1086                                             |                  |      |         |             |                                                                                       |                              |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   |     |    |  |    |
|                                                                          | 8                | 2014 | NAVY    | 250         | 250                                                                                   | 0                            |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 0   |    |  |    |
|                                                                          | 8                | 2015 | NAVY    | 80          | 49                                                                                    | 31                           | 7                                                                         | 6           | 6           | 6           | 6           |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   | 0                               |   |     |    |  |    |
|                                                                          | 8                | 2017 | NAVY    | 138         | 0                                                                                     | 138                          |                                                                           |             |             |             |             |             |             | A -         | -           | -           | -           | -           | -                                                      | -           | -           | -           | -           | 12          | 12          | 12          | 12          | 12          | 12          | 11          | 55 |   |                                 |   |     |    |  |    |
|                                                                          | 8                | 2018 | NAVY    | 80          | 0                                                                                     | 80                           |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             | A -         | -           | -           | -  | - | -                               | - | 7   | 73 |  |    |
|                                                                          | 8                | 2019 | NAVY    | 80          | 0                                                                                     | 80                           |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 80  |    |  |    |
| 3.2) Gas Generator MK77 Mod 0 <sup>(9)</sup>                             |                  |      |         |             |                                                                                       |                              |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   |     |    |  |    |
|                                                                          | 9                | 2015 | NAVY    | 270         | 270                                                                                   | 0                            |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 0   |    |  |    |
|                                                                          | 9                | 2016 | NAVY    | 300         | 25                                                                                    | 275                          | 25                                                                        | 25          | 25          | 25          | 25          | 25          | 25          | 25          | 25          |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   | 0                               |   |     |    |  |    |
|                                                                          | 9                | 2017 | NAVY    | 41          | 0                                                                                     | 41                           |                                                                           |             |             |             |             |             |             | A -         | -           | -           | -           | -           | -                                                      | 4           | 4           | 4           | 4           | 4           | 4           | 3           | 3           | 3           | 2           | 2           |    |   | 0                               |   |     |    |  |    |
|                                                                          | 9                | 2018 | NAVY    | 40          | 0                                                                                     | 40                           |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             | A -         | -           | -           | -  | - | -                               | - | 4   | 36 |  |    |
|                                                                          | 9                | 2019 | NAVY    | 40          | 0                                                                                     | 40                           |                                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                        |             |             |             |             |             |             |             |             |             |             |             |    |   |                                 |   | 40  |    |  |    |
|                                                                          |                  |      |         |             |                                                                                       |                              | O<br>C<br>T                                                               | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T                                            | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |    |   |                                 |   |     |    |  |    |

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|--------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|--------------------|-------------|-------------|------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|-------------|-------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|-------------|-------------|-------------|--|--|--|
| Appropriation / Budget Activity / Budget Sub Activity: |                  |      |         |             |                                        |                              |                    |             |             | P-1 Line Item Number / Title:            |             |             |             |             |             |             |                    |             |             | Aggregated Items:                 |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| 1810N / 02 / 3                                         |                  |      |         |             |                                        |                              |                    |             |             | 2210 / Submarine Acoustic Warfare System |             |             |             |             |             |             |                    |             |             | Submarine Acoustic Warfare System |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| Items<br><i>(Units in Each)</i>                        |                  |      |         |             |                                        |                              | Fiscal Year 2019   |             |             |                                          |             |             |             |             |             |             | Fiscal Year 2020   |             |             |                                   |             |             |             |             |             |             | B<br>A<br>L<br>A<br>N<br>C<br>E |             |             |             |             |  |  |  |
| O<br>C<br>C<br>O                                       | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2018 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2019 |             |             |                                          |             |             |             |             |             |             | Calendar Year 2020 |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                              | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G        | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V                       | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y |                                 | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |  |  |  |
| 1) WM014 6 INCH                                        |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| 1.1) 6" Countermeasure Launch Tube <sup>(1)</sup>      |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| Prior Years Deliveries: 444                            |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        | 1                | 2014 | NAVY    |             | 75                                     | 75                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 1                | 2015 | NAVY    |             | 109                                    | 109                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 1                | 2016 | NAVY    |             | 200                                    | 200                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 1                | 2017 | NAVY    |             | 177                                    | 177                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 1                | 2018 | NAVY    |             | 125                                    | 60                           | 65                 | 10          | 11          | 11                                       | 11          | 11          | 11          | 11          |             |             |                    |             |             |                                   |             |             |             |             | 0           |             |                                 |             |             |             |             |  |  |  |
| 1.2) ADC MK3 (TORPEDO) NEW <sup>(2)</sup>              |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| Prior Years Deliveries: 285                            |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        | 2                | 2013 | NAVY    |             | 125                                    | 125                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 2                | 2014 | NAVY    |             | 70                                     | 70                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 2                | 2015 | NAVY    |             | 52                                     | 52                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 2                | 2016 | NAVY    |             | 40                                     | 40                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 2                | 2017 | NAVY    |             | 35                                     | 35                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 3                | 2018 | NAVY    |             | 42                                     | 12                           | 30                 | 3           | 3           | 4                                        | 4           | 4           | 4           | 4           | 4           |             |                    |             |             |                                   |             |             |             |             |             | 0           |                                 |             |             |             |             |  |  |  |
| 1.4) MK 3 ADC SLEP <sup>(4)</sup>                      |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        | 4                | 2015 | NAVY    |             | 88                                     | 88                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 4                | 2016 | NAVY    |             | 150                                    | 150                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 4                | 2017 | NAVY    |             | 28                                     | 28                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 4                | 2018 | NAVY    |             | 20                                     | 16                           | 4                  | 4           |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             | 0           |             |             |  |  |  |
| 1.6) ADC MK 4 SLEP <sup>(5)</sup>                      |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        | 5                | 2015 | NAVY    |             | 36                                     | 36                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 5                | 2016 | NAVY    |             | 50                                     | 50                           | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 5                | 2017 | NAVY    |             | 12                                     | 0                            | 12                 | 4           | 4           | 4                                        |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             | 0           |  |  |  |
| 2) WM015 3 INCH                                        |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| 2.1) NAE BEACON <sup>(6)</sup>                         |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
| Prior Years Deliveries: 429                            |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        | 6                | 2014 | NAVY    |             | 670                                    | 670                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 6                | 2015 | NAVY    |             | 808                                    | 808                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
|                                                        | 6                | 2016 | NAVY    |             | 514                                    | 514                          | 0                  |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 | 0           |             |             |             |  |  |  |
| 2.2) ADC MK2 <sup>(7)</sup>                            |                  |      |         |             |                                        |                              |                    |             |             |                                          |             |             |             |             |             |             |                    |             |             |                                   |             |             |             |             |             |             |                                 |             |             |             |             |  |  |  |
|                                                        |                  |      |         |             |                                        |                              |                    | O<br>C<br>T | N<br>O<br>V | D<br>E<br>C                              | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L        | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T                       | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y                     | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |  |  |  |

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| <b>Exhibit P-21, Production Schedule:</b> PB 2019 Navy                          |  |  |  |  |                                                                                  |  |  |  |  | <b>Date:</b> February 2018                                    |  |  |  |  |  |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |  |  |  |  | <b>Aggregated Items:</b><br>Submarine Acoustic Warfare System |  |  |  |  |  |  |  |  |  |

| Items<br>(Units in Each)                                    |                  |      |         |             |                                        | Fiscal Year 2019             |                    |             |             |             |             |             |             |             |             |             |             | Fiscal Year 2020 |                    |             |             |             |             |             |             |             |             |             |             | B<br>A<br>L<br>A<br>N<br>C<br>E |             |   |  |  |   |
|-------------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|-------------|---|--|--|---|
| O<br>C<br>C<br>O                                            | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2018 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2019 |             |             |             |             |             |             |             |             |             |             |                  | Calendar Year 2020 |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  |   |
|                                                             |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P      | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G |                                 | S<br>E<br>P |   |  |  |   |
|                                                             | 7                | 2011 | NAVY    | 354         | 354                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 7                | 2012 | NAVY    | 808         | 808                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 7                | 2014 | NAVY    | 280         | 280                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 7                | 2016 | NAVY    | 88          | 88                                     | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 7                | 2017 | NAVY    | 100         | 100                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 7                | 2018 | NAVY    | 100         | 16                                     | 84                           | 8                  | 8           | 8           | 8           | 8           | 9           | 9           | 9           | 9           |             |             |                  |                    |             |             |             |             |             |             |             |             |             | 0           |                                 |             |   |  |  |   |
|                                                             | 7                | 2019 | NAVY    | 509         | 0                                      | 509                          |                    |             |             |             |             |             | A -         | -           | -           | 43          | 43          | 43               | 43                 | 43          | 42          | 42          | 42          | 42          | 42          | 42          | 42          | 42          |             | 0                               |             |   |  |  |   |
| 3) WM022 GAS GENERATOR MK77                                 |                  |      |         |             |                                        |                              |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  |   |
| 3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION <sup>(8)</sup> |                  |      |         |             |                                        |                              |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  |   |
| Prior Years Deliveries: 1086                                |                  |      |         |             |                                        |                              |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  |   |
|                                                             | 8                | 2014 | NAVY    | 250         | 250                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 8                | 2015 | NAVY    | 80          | 80                                     | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 8                | 2017 | NAVY    | 138         | 83                                     | 55                           | 11                 | 11          | 11          | 11          | 11          |             |             |             |             |             |             |                  |                    |             |             |             |             |             | 0           |             |             |             |             |                                 |             |   |  |  |   |
|                                                             | 8                | 2018 | NAVY    | 80          | 7                                      | 73                           | 7                  | 7           | 7           | 7           | 7           | 7           | 6           | 6           | 6           | 6           |             |                  |                    |             |             |             |             |             |             |             | 0           |             |             |                                 |             |   |  |  |   |
|                                                             | 8                | 2019 | NAVY    | 80          | 0                                      | 80                           |                    |             |             |             |             | A -         | -           | -           | -           | -           | -           | -                | 6                  | 6           | 6           | 6           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7                               |             | 0 |  |  |   |
| 3.2) Gas Generator MK77 Mod 0 <sup>(9)</sup>                |                  |      |         |             |                                        |                              |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  |   |
|                                                             | 9                | 2015 | NAVY    | 270         | 270                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 9                | 2016 | NAVY    | 300         | 300                                    | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 9                | 2017 | NAVY    | 41          | 41                                     | 0                            |                    |             |             |             |             |             |             |             |             |             |             |                  |                    |             |             |             |             |             |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             | 9                | 2018 | NAVY    | 40          | 4                                      | 36                           | 4                  | 4           | 4           | 3           | 3           | 3           | 3           | 3           | 3           | 3           |             |                  |                    |             |             |             |             |             |             |             | 0           |             |             |                                 |             |   |  |  |   |
|                                                             | 9                | 2019 | NAVY    | 40          | 0                                      | 40                           | A -                | -           | -           | -           | -           | -           | 3           | 3           | 3           | 3           | 3           | 3                | 3                  | 3           | 4           | 4           | 4           | 4           |             |             |             |             |             |                                 |             |   |  |  | 0 |
|                                                             |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P      | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P                     |             |   |  |  |   |

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| <b>Exhibit P-21, Production Schedule:</b> PB 2019 Navy                          |  |                                                                                  | <b>Date:</b> February 2018 |  |                                                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                            |  | <b>Aggregated Items:</b><br>Submarine Acoustic Warfare System |

| MFR<br>Ref<br># | Manufacturer<br>Name - Location        | Production Rates (Each / Year) |                |              | Procurement Leadtime (Months) |                    |                      |                      |                       |                    |                      |                      |
|-----------------|----------------------------------------|--------------------------------|----------------|--------------|-------------------------------|--------------------|----------------------|----------------------|-----------------------|--------------------|----------------------|----------------------|
|                 |                                        | MSR For 2019                   | 1-8-5 For 2019 | MAX For 2019 | Initial                       |                    |                      |                      | Reorder               |                    |                      |                      |
|                 |                                        |                                |                |              | ALT<br>Prior to Oct 1         | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 | ALT<br>Prior to Oct 1 | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 |
| 1               | FRC -SW - San Diego, CA                |                                |                |              | 0                             | 0                  | 0                    | 0                    | 0                     | 0                  | 0                    | 0                    |
| 2               | ULTRA - BRAINTREE, MA                  | 192                            | 288            | 576          | 0                             | 0                  | 0                    | 0                    | 7                     | 2                  | 12                   | 14                   |
| 3               | TBD - TBD                              |                                |                |              | 0                             | 0                  | 0                    | 0                    | 0                     | 0                  | 0                    | 0                    |
| 4               | ULTRA - BRAINTREE, MA                  |                                |                |              | 0                             | 0                  | 0                    | 0                    | 0                     | 0                  | 0                    | 0                    |
| 5               | ULTRA - BRAINTREE, MA                  | 192                            | 288            | 576          | 8                             | 2                  | 11                   | 13                   | 8                     | 2                  | 11                   | 13                   |
| 6               | ULTRA - BRAINTREE, MA                  | 840                            | 1,440          | 2,880        | 0                             | 0                  | 0                    | 0                    | 5                     | 3                  | 11                   | 14                   |
| 7               | ULTRA - BRAINTREE, MA                  | 840                            | 1,440          | 2,880        | 0                             | 1                  | 0                    | 1                    | 0                     | 1                  | 12                   | 13                   |
| 8               | NSWC/INDIAN HEAD -<br>NSWC INDIAN HEAD | 48                             | 480            | 960          | 0                             | 0                  | 0                    | 0                    | 6                     | 5                  | 6                    | 11                   |
| 9               | NSWC/IH - INDIAN HEAD,<br>MD           | 48                             | 480            | 960          | 0                             | 0                  | 0                    | 0                    | 0                     | 5                  | 6                    | 11                   |

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                                  |  |  | <b>Date:</b> February 2018 |                                                       |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |  |  |                            | <b>Modification Number / Title:</b><br>1 / AASP WM018 |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 6.669       | 2.843   | 3.022   | 4.061        | 0.000       | 4.061           | 2.504   | 2.553   | 5.757   | 4.901   | 34.449      | 66.759 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 6.669       | 2.843   | 3.022   | 4.061        | 0.000       | 4.061           | 2.504   | 2.553   | 5.757   | 4.901   | 34.449      | 66.759 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 6.669       | 2.843   | 3.022   | 4.061        | 0.000       | 4.061           | 2.504   | 2.553   | 5.757   | 4.901   | 34.449      | 66.759 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The Acoustic Augmentation Support Program (AASP) provides acoustic augmenting systems in appropriate configurations for all submarine classes (except SEAWOLF) installed as temporary equipment (a TEMPALT). A permanently installed Ship Alteration (SHIPALT) configuration for VIRGINIA Class Block I/II/III was developed and installations will start in FY17 (delayed from FY16 due because budget insufficient for installation cost estimates). A permanent SHIPALT for VIRGINIA Class Block IV will be developed in FY17 and installations will start in FY26, gradually phasing out the TEMPALTs on VIRGINIA Class. Reliability and refresh upgrades sustain current in-service AASP systems with new components and software updates to maintain reliability.

[WM018 AASP Support] Includes production support for BLK I-IV SHIPALTS and the AASP reliability and refurbishment upgrade.

[WM018 AASP (Acoustic Augmentation Support Program)] AASP includes costs of procuring new systems and reuse of available components, including the HLF-1, for SHIPALT installation such that "unit cost" is a mix of new and used components. An additional HLF-1 transducer (not a complete full system) is procured in FY17 (\$587K) and FY19 (\$610K).

[WM018 AASP Reliability and Refurbishment Upgrade] Reliability and refurbishment upgrade to sustain current in-service AASP systems.

[WM018 AASP (Acoustic Augmentation Support Program)] Non-recurring costs to produce AASP SHIPALT Package.

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|----------------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------------------------|---------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                    |                                |                                |                                     |                                                                           |                                |                                |                                | Date: February 2018            |                                                |                                |                                |                                |             |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3               |                                |                                |                                     | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |                                |                                |                                |                                | Modification Number / Title:<br>1 / AASP WM018 |                                |                                |                                |             |
| ID Code (A=Service Ready, B=Not Service Ready) :                                       |                                |                                |                                     |                                                                           |                                |                                | MDAP/MAIS Code:                |                                |                                                |                                |                                |                                |             |
| Models of Systems Affected: AN/BQT-1                                                   |                                |                                | Modification Type: Tactical TEMPALT |                                                                           |                                |                                |                                | Related RDT&E PEs:             |                                                |                                |                                |                                |             |
| Financial Plan                                                                         | Prior Years                    | FY 2017                        | FY 2018                             | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                        | FY 2023                        | To Complete                    | Total                          |             |
|                                                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)      | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |             |
| Procurement                                                                            |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| Modification Item 1 of 1: AASP WM018                                                   |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| B Kits                                                                                 |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| Recurring                                                                              |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| 1.1.1) WM018 AASP Support - Organic <sup>(10)</sup>                                    |                                | - / 0.165                      | - / 0.274                           | - / 0.175                                                                 | - / 0.445                      | - / -                          | - / 0.445                      | - / 0.454                      | - / 0.463                                      | - / 0.472                      | - / 0.482                      | - / 3.654                      | - / 6.584   |
| 1.1.2) WM018 AASP (Acoustic Augmentation Support Program) - NonOrganic <sup>(11)</sup> |                                | 1 / 0.864                      | 1 / 0.879                           | 2 / 1.821                                                                 | 1 / 1.524                      | - / -                          | 1 / 1.524                      | 1 / 0.932                      | 1 / 0.951                                      | 3 / 2.907                      | 1 / 0.988                      | 9 / 9.634                      | 20 / 20.500 |
| 1.1.3) WM018 AASP Reliability and Refurbishment Upgrade - NonOrganic <sup>(12)</sup>   |                                | 1 / 1.315                      | - / -                               | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                          | 1 / 0.114                      | - / -                          | 6 / 0.731                      | 8 / 2.160   |
| Subtotal: Recurring                                                                    |                                | - / 2.344                      | - / 1.153                           | - / 1.996                                                                 | - / 1.969                      | - / -                          | - / 1.969                      | - / 1.386                      | - / 1.414                                      | - / 3.493                      | - / 1.470                      | - / 14.019                     | - / 29.244  |
| Non-Recurring                                                                          |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| 1.2.1) WM018 AASP (Acoustic Augmentation Support Program) - Organic                    |                                | - / 3.950                      | - / 0.360                           | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                          | - / -                          | - / -                          | - / -                          | - / 4.310   |
| Subtotal: Non-Recurring                                                                |                                | - / 3.950                      | - / 0.360                           | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                          | - / -                          | - / -                          | - / 0.000                      | - / 4.310   |
| Subtotal: AASP WM018                                                                   |                                | 2 / 6.294                      | 1 / 1.513                           | 2 / 1.996                                                                 | 1 / 1.969                      | - / -                          | 1 / 1.969                      | 1 / 1.386                      | 1 / 1.414                                      | 4 / 3.493                      | 1 / 1.470                      | 15 / 14.019                    | 28 / 33.554 |
| Subtotal: Procurement, All Modification Items                                          |                                | - / 6.294                      | - / 1.513                           | - / 1.996                                                                 | - / 1.969                      | - / -                          | - / 1.969                      | - / 1.386                      | - / 1.414                                      | - / 3.493                      | - / 1.470                      | - / 14.019                     | - / 33.554  |
| Installation                                                                           |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| Modification Item 1 of 1: AASP WM018                                                   |                                | - / 0.375                      | - / 1.330                           | - / 1.026                                                                 | - / 2.092                      | - / 0.000                      | - / 2.092                      | - / 1.118                      | - / 1.139                                      | - / 2.264                      | - / 3.431                      | - / 20.430                     | - / 33.205  |
| Subtotal: Installation                                                                 |                                | - / 0.375                      | - / 1.330                           | - / 1.026                                                                 | - / 2.092                      | - / -                          | - / 2.092                      | - / 1.118                      | - / 1.139                                      | - / 2.264                      | - / 3.431                      | - / 20.430                     | - / 33.205  |
| Total                                                                                  |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |
| Total Cost (Procurement + Support + Installation)                                      |                                | 6.669                          | 2.843                               | 3.022                                                                     | 4.061                          | 0.000                          | 4.061                          | 2.504                          | 2.553                                          | 5.757                          | 4.901                          | 34.449                         | 66.759      |
|                                                                                        |                                |                                |                                     |                                                                           |                                |                                |                                |                                |                                                |                                |                                |                                |             |

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|--------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|----------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|----------------------------------------------|-----------|--------------------------------|----------------|--------------------------------|-------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                   |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                       |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                              |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                                |           |                                |                |                                              |           |                                |                |                                | <b>Modification Number / Title:</b><br>1 / AASP WM018 |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                | <b>MDAP/MAIS Code:</b>                       |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AASP WM018                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: HydroAcoustics, Inc                                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                | Manufacturer Location: Henritta, NY          |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                | Production Leadtime (in Months): 10          |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                 |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                   |                                |           |                                | <b>FY 2020</b> |                                              |           |                                | <b>FY 2021</b> |                                |                                                       |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                               |            | Jan 2017                       |                                |           |                                | Jan 2018       |                                |           |                                | Jan 2019                                                                         |                                |           |                                | Jan 2020       |                                              |           |                                | Jan 2021       |                                |                                                       |                                | Jan 2022       |                                |           |           | Jan 2023       |           |           |           |           |            |
| Delivery Dates                                                                                               |            | Nov 2017                       |                                |           |                                | Nov 2018       |                                |           |                                | Nov 2019                                                                         |                                |           |                                | Nov 2020       |                                              |           |                                | Nov 2021       |                                |                                                       |                                | Nov 2022       |                                |           |           | Nov 2023       |           |           |           |           |            |
| Manufacturer Name: NUWC Newport                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                | Manufacturer Location: Newport, Rhode Island |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 1                                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                | Production Leadtime (in Months): 2           |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                 |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                   |                                |           |                                | <b>FY 2020</b> |                                              |           |                                | <b>FY 2021</b> |                                |                                                       |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                               |            | Jun 2017                       |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                | Oct 2021       |                                |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                               |            | Sep 2017                       |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                | Jan 2022       |                                |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: WM018 AASP (Acoustic Augmentation Support Program) |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                     |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                  | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                               |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                       | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                                              |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                  | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)               |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                       | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                  |            | - / -                          | 1 / 0.390                      |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | - / -                                        |           | - / -                          |                | - / -                          |                                                       | 0 / 0.000                      |                | 1 / 0.390                      |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                      |            | - / -                          | - / -                          |           | 1 / 1.026                      |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | - / -                                        |           | - / -                          |                | - / -                          |                                                       | 0 / 0.000                      |                | 1 / 1.026                      |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | 2 / 2.092                      |           | 0 / 0.000                      |                                                                                  | 2 / 2.092                      |           | - / -                          |                | - / -                                        |           | - / -                          |                | - / -                          |                                                       | 0 / 0.000                      |                | 2 / 2.092                      |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | 1 / 1.118                      |                | - / -                                        |           | - / -                          |                | - / -                          |                                                       | 0 / 0.000                      |                | 1 / 1.118                      |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | 1 / 1.139                                    |           | - / -                          |                | - / -                          |                                                       | 0 / 0.000                      |                | 1 / 1.139                      |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | - / -                                        |           | 1 / 1.132                      |                | - / -                          |                                                       | 0 / 0.000                      |                | 1 / 1.132                      |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | - / -                                        |           | - / -                          |                | 3 / 3.431                      |                                                       | 0 / 0.000                      |                | 3 / 3.431                      |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | - / -                                        |           | - / -                          |                | - / -                          |                                                       | 1 / 0.988                      |                | 1 / 0.988                      |           |           |                |           |           |           |           |            |
| To Complete                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                  | - / -                          |           | - / -                          |                | - / -                                        |           | - / -                          |                | - / -                          |                                                       | 9 / 12.343                     |                | 9 / 12.343                     |           |           |                |           |           |           |           |            |
| Total                                                                                                        |            | - / -                          | 1 / 0.390                      |           | 1 / 1.026                      |                | 2 / 2.092                      |           | 0 / 0.000                      |                                                                                  | 2 / 2.092                      |           | 1 / 1.118                      |                | 1 / 1.139                                    |           | 1 / 1.132                      |                | 3 / 3.431                      |                                                       | 10 / 13.331                    |                | 20 / 23.659                    |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                 |            |                                |                                |           |                                |                |                                |           |                                |                                                                                  |                                |           |                                |                |                                              |           |                                |                |                                |                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                                              | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                   |                                |           |                                | <b>FY 2020</b> |                                              |           |                                | <b>FY 2021</b> |                                |                                                       |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                                              |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                        | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                    | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                             | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                                           | -          | -                              | 1                              | -         | -                              | 1              | -                              | -         | -                              | 1                                                                                | 1                              | -         | -                              | -              | 1                                            | -         | -                              | 1              | -                              | -                                                     | -                              | -              | -                              | 1         | -         | 2              | -         | -         | 1         | 10        | 20         |
| Out                                                                                                          | -          | -                              | 1                              | -         | -                              | 1              | -                              | -         | -                              | 1                                                                                | 1                              | -         | -                              | -              | 1                                            | -         | -                              | 1              | -                              | -                                                     | -                              | -              | -                              | 1         | -         | 2              | -         | -         | 1         | 10        | 20         |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------|-----------|-----------|----------------|-----------|-------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                       |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                                       |                                       |                                       |                                       |                        |           |           |                |           | <b>Modification Number / Title:</b><br>1 / AASP WM018 |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AASP WM018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: WM018 AASP Reliability and Refurbishment Upgrade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                   | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | 0 / 0.375                             | 1 / 0.940                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | 0 / 0.000                             | 1 / 1.315                             |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 1 / 1.132                                                                        | - / -                                 | 0 / 0.000                             | 1 / 1.132                             |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | 6 / 7.099                             | 6 / 7.099                             |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | 0 / 0.375                             | 1 / 0.940                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 1 / 1.132                                                                        | - / -                                 | 6 / 7.099                             | 8 / 9.546                             |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                                   |                                       |                                       |                                       | <b>FY 2020</b>                        |                        |           |           | <b>FY 2021</b> |           |                                                       |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                        | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                             | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -          | -                                     | 1                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                                | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | -         | -                                                     | -         | 1              | -         | -         | -         | -              | -         | -         | -         | 6         | 8          |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -          | -                                     | 1                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                                | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | -         | -                                                     | -         | 1              | -         | -         | -         | -              | -         | -         | -         | 6         | 8          |
| <b>Footnotes:</b><br><sup>(10)</sup> Includes production support for SHIPALT 4678. FY17 Increased 1.1.1 with funds from 1.1.3. This increase is due to the Information Assurance (IA) effort. FY19 increase in 1.1.1 is due to installations and support. These costs are for 2 FTE to manage the effort (including the IA requirements) and match with the SWFTS upgrade cycle.<br><sup>(11)</sup> An additional HLF-1 transducer is procured in FY19 (\$610K) which increases the unit cost per system. Anticipated cost for installation in FY16 exceeded available funds, consequently, the installation was shifted to FY17 with the additional funding identified.<br><sup>(12)</sup> Installations will occur one or two years after procurement due to long term availabilities scheduling. Installation quantities updated in order to accommodate the current budget with the new increased installation cost. FY17 Installations used FY16 funds and FY17 Installation funds. A second AASP SHIPALT installation accomplished in FY17 with available funds due to NRE Cost reduction. One installation is planned in FY18 and two in FY19. |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                       |           |                |           |           |           |                |           |           |           |           |            |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|---------------------------------------------------------------------------|-------------|---------------|-----------------|-----------------------------------------------|---------|---------|-------------|------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         |                                                                           |             |               |                 | Date: February 2018                           |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |         | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |             |               |                 | Modification Number / Title:<br>2 / CSA WM019 |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         |         |                                                                           |             |               | MDAP/MAIS Code: |                                               |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                              | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021                                       | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           | -       | -       | -                                                                         | -           | -             | -               | -                                             | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 27.070      | 9.169   | 10.784  | 6.321                                                                     | 0.000       | 6.321         | 7.403           | 7.991                                         | 7.137   | 8.373   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -       | -                                                                         | -           | -             | -               | -                                             | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 27.070      | 9.169   | 10.784  | 6.321                                                                     | 0.000       | 6.321         | 7.403           | 7.991                                         | 7.137   | 8.373   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -       | -                                                                         | -           | -             | -               | -                                             | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 27.070      | 9.169   | 10.784  | 6.321                                                                     | 0.000       | 6.321         | 7.403           | 7.991                                         | 7.137   | 8.373   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -           | -       | -       | -                                                                         | -           | -             | -               | -                                             | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | -       | -       | -                                                                         | -           | -             | -               | -                                             | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |
| WM019 - The Countermeasure Set, Acoustic (CSA) program procures and supports the inboard electronic system necessary for preparing and launching 6" Acoustic Device Countermeasures (ADCs) from all 688i and newer U.S. submarines. This inboard system consists of the Torpedo Defense Controller (TDC), Launch Control Panels (LCPs), and associated cabling, in a class-by-class configuration. The CSA program provides obsolescence support for legacy systems and engineering changes to accommodate modified and planned new devices, such as the ADC MK5. Four efforts are supported: (1) the "Technology Refresh" effort is designing, building, testing and certifying replacement components for obsolete CSA MK2 systems (MOD0/3/4) on 688i SSN and OHIO SSBN submarines, with the refresh occurring in FY17-FY20. (2) The "CSA MK3 Technology Insertion" effort is federating the CSA MK3 system with Submarine Warfare Federated Tactical System (SWFTS) to facilitate the ADC MK5 and Submarine Torpedo Defense Tactical Decision Aid (SubTDS TacDA) upon introduction. A phased approach was taken to allow a more efficient incremental implementation of initial capabilities. Required funding is expected to level off after ADC MK5 device fielding and address recurring upgrades with Technology Insertion/Advanced Processor Build (TI/APB). (3) The "CSA MK4 Technology Insertion" effort replaces CSA MK2 MOD2 with CSA MK4 as a "SWFTS-federated" system on VIRGINIA Class Block I and II submarines (10 hulls) to accommodate the introduction of ADC MK5 devices. Non-recurring engineering, production testing, EQT and SHIPALT/Logistics documentation will continue in FY18, with installs starting in FY19 to better align with overall submarine availabilities scheduling. (4) The fourth effort is the ongoing support of engineering issues across all CSA systems as they arise. |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |
| [WM019 CSA MK3 Engineering Changes (LAN, SWFTS, TDA)] WM019 CSA MK3 Engineering Changes - (LAN, SWFTS, TacDA) - Organic] Technology insertion effort that supports and designs engineering changes for SSGN, SEAWOLF, and VA Blk III and follow ships, including the Countermeasures Set Acoustic (CSA) system, Torpedo Defense Controller (TDC), and Launch Control Panels (LCPs). This supports changes to correct obsolescence, and engineering changes necessary to accommodate modified devices and new devices, such as the ADC MK5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |
| [WM019 ECPs CSA MK2 MOD 2 Conversion to MK 4] WM019 - ECPs CSA MK2 MOD2 Conversion to CSA MK4 - Organic] Technology insertion effort that converts CSA MK2 MOD2 to CSA MK4 to accommodate introduction of ADC MK5 to Virginia Class Block 1 and 2 Ships (10 hulls). Proofing will complete in FY18, with replacement installations starting in FY19 to better align with overall submarine availabilities scheduling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |
| [WM019 CSA MK2 MOD 0 OBSOLESCENCE] WM019 - CSA MK2 MOD0 Obsolescence - NonOrganic Technical refresh effort that designs, builds, tests and certifies replacement components for obsolete CSA MK2 MOD4 on 688i ships and CSA MK2 MOD0 and 3 on SSBNs. Upgrades will occur in FY16-FY20.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |
| [WM019 CSAMK2 MOD2 CONVERSION to CSA MK4] WM019 - CSA MK2 MOD2 Conversion to CSA MK4 - Non Organic Technology Insertion effort that procures engineering change kits and systems including Countermeasures Set Acoustic (CSA) system, Torpedo Defense Controller (TDC), Launch Control Panels (LCPs), and CSA support system assets to correct obsolescence, including engineering changes necessary to accommodate modified devices and new devices, such as the ADC MK5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |         |                                                                           |             |               |                 |                                               |         |         |             |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                  | <b>Date:</b> February 2018                           |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System | <b>Modification Number / Title:</b><br>2 / CSA WM019 |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                  | <b>MDAP/MAIS Code:</b>                               |
| <p>[WM019 CSAMK3 Kits and Systems] WM019 - CSA MK3 Kits and Systems - NonOrganic Procures engineering change kits and systems in support of SAWS including Countermeasures Set Acoustic (CSA) system, Torpedo Defense Controller (TDC), Launch Control Panels (LCPs), CSA support system assets to correct obsolescence, including engineering changes necessary to accommodate modified devices and new devices, such as the ADC MK5.</p> <p>[WM019 CSA MK2 MOD 2 Conversion to CSA MK4] WM019 - CSA MK2 MOD2 Conversion to CSA MK4 - Organic Nonrecurring costs for the Technology Insertion CSA MK4.</p> <p>[WM019 CSA ISEA] WM019 - CSA ISEA Supports engineering issues across all systems and platforms as they arise, using ISEA support.</p> |                                                                                  |                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                  |                                                      |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                  |                                |                                |                                       |                                                                           |                                |                                |                                | Date: February 2018                           |                                |                                |                                |                                |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3             |                                |                                |                                       | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |                                |                                |                                | Modification Number / Title:<br>2 / CSA WM019 |                                |                                |                                |                                |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                                     |                                |                                |                                       |                                                                           |                                |                                | MDAP/MAIS Code:                |                                               |                                |                                |                                |                                |            |
| Models of Systems Affected: Countermeasure Set Acoustic                              |                                |                                | Modification Type: SHIPALT, OCMOD, EC |                                                                           |                                |                                |                                | Related RDT&E PEs:                            |                                |                                |                                |                                |            |
| Financial Plan                                                                       | Prior Years                    | FY 2017                        | FY 2018                               | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                       | FY 2022                        | FY 2023                        | To Complete                    | Total                          |            |
|                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |            |
| Procurement                                                                          |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| Modification Item 1 of 1: CSA WM019                                                  |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| B Kits                                                                               |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| Recurring                                                                            |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| 1.1.1) WM019 CSA MK3 Engineering Changes (LAN, SWFTS, TDA) - Organic <sup>(13)</sup> |                                | - / 9.345                      | - / 0.711                             | - / 1.813                                                                 | - / 1.205                      | - / -                          | - / 1.205                      | - / 1.144                                     | - / 1.836                      | - / 1.246                      | - / 1.500                      | Continuing                     | Continuing |
| 1.1.2) WM019 ECPs CSA MK2 MOD 2 Conversion to MK 4 - Organic <sup>(14)</sup>         |                                | - / -                          | - / 4.579                             | - / 2.515                                                                 | - / 1.226                      | - / -                          | - / 1.226                      | - / 1.817                                     | - / 2.089                      | - / 1.835                      | - / 1.500                      | Continuing                     | Continuing |
| 1.1.3) WM019 CSA MK2 MOD 0 OBSOLESCENCE - NonOrganic <sup>(15)</sup>                 |                                | 42 / 4.106                     | - / 0.650                             | - / 0.663                                                                 | - / 0.379                      | - / -                          | - / 0.379                      | - / 0.206                                     | - / -                          | - / -                          | - / -                          | - / -                          | 42 / 6.004 |
| 1.1.4) WM019 CSAMK2 MOD2 CONVERSION to CSA MK4 - NonOrganic <sup>(16)</sup>          |                                | - / -                          | 3 / 1.652                             | 5 / 2.142                                                                 | 2 / 0.860                      | - / -                          | 2 / 0.860                      | 7 / 1.000                                     | 4 / 0.675                      | 4 / 0.675                      | 4 / 0.675                      | Continuing                     | Continuing |
| 1.1.5) WM019 CSAMK3 Kits and Systems - NonOrganic <sup>(17)</sup>                    |                                | 3 / 0.430                      | - / -                                 | 4 / 0.760                                                                 | 3 / 0.675                      | - / -                          | 3 / 0.675                      | 8 / 1.000                                     | 7 / 1.628                      | 4 / 0.500                      | 6 / 1.125                      | Continuing                     | Continuing |
| Subtotal: Recurring                                                                  |                                | - / 13.881                     | - / 7.592                             | - / 7.893                                                                 | - / 4.345                      | - / -                          | - / 4.345                      | - / 5.167                                     | - / 6.228                      | - / 4.256                      | - / 4.800                      | Continuing                     | Continuing |
| Non-Recurring                                                                        |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| 1.2.1) WM019 CSA MK2 MOD 2 Conversion to CSA MK4 - Organic <sup>(18)</sup>           |                                | - / 7.641                      | - / -                                 | - / 1.357                                                                 | - / -                          | - / -                          | - / -                          | - / -                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / 8.998  |
| Subtotal: Non-Recurring                                                              |                                | - / 7.641                      | - / -                                 | - / 1.357                                                                 | - / -                          | - / -                          | - / -                          | - / -                                         | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 8.998  |
| Subtotal: CSA WM019                                                                  |                                | 45 / 21.522                    | 3 / 7.592                             | 9 / 9.250                                                                 | 5 / 4.345                      | - / -                          | 5 / 4.345                      | 15 / 5.167                                    | 11 / 6.228                     | 8 / 4.256                      | 10 / 4.800                     | Continuing                     | Continuing |
| Subtotal: Procurement, All Modification Items                                        |                                | - / 21.522                     | - / 7.592                             | - / 9.250                                                                 | - / 4.345                      | - / -                          | - / 4.345                      | - / 5.167                                     | - / 6.228                      | - / 4.256                      | - / 4.800                      | Continuing                     | Continuing |
| Support (All Modification Items)                                                     |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| 2.1) WM019 CSA ISEA <sup>(19)</sup>                                                  |                                | - / 5.148                      | - / 0.752                             | - / 0.771                                                                 | - / 0.750                      | - / -                          | - / 0.750                      | - / 0.791                                     | - / 0.862                      | - / 0.961                      | - / 1.057                      | Continuing                     | Continuing |
| Subtotal: Support                                                                    |                                | - / 5.148                      | - / 0.752                             | - / 0.771                                                                 | - / 0.750                      | - / -                          | - / 0.750                      | - / 0.791                                     | - / 0.862                      | - / 0.961                      | - / 1.057                      | Continuing                     | Continuing |
| Installation                                                                         |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| Modification Item 1 of 1: CSA WM019                                                  |                                | - / 0.400                      | - / 0.825                             | - / 0.763                                                                 | - / 1.226                      | - / 0.000                      | - / 1.226                      | - / 1.445                                     | - / 0.901                      | - / 1.920                      | - / 2.516                      | Continuing                     | Continuing |
| Subtotal: Installation                                                               |                                | - / 0.400                      | - / 0.825                             | - / 0.763                                                                 | - / 1.226                      | - / -                          | - / 1.226                      | - / 1.445                                     | - / 0.901                      | - / 1.920                      | - / 2.516                      | Continuing                     | Continuing |
| Total                                                                                |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |
| Total Cost (Procurement + Support + Installation)                                    |                                | 27.070                         | 9.169                                 | 10.784                                                                    | 6.321                          | 0.000                          | 6.321                          | 7.403                                         | 7.991                          | 7.137                          | 8.373                          | Continuing                     | Continuing |
|                                                                                      |                                |                                |                                       |                                                                           |                                |                                |                                |                                               |                                |                                |                                |                                |            |

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|--------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|-------------------------------------|------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                 |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018          |                                                      |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3            |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                                |                                |                                     | <b>Modification Number / Title:</b><br>2 / CSA WM019 |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                    |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>              |                                                      |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> CSA WM019                                                 |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                      |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                            |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                      |                                |                                |                                |                                |
| Manufacturer Name: CSA MK3 RAYTHEON                                                        |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Keyport, WA  |                                                      |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 6                                                     |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 18 |                                                      |                                |                                |                                |                                |
| <b>Dates</b>                                                                               | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                      |                                                      |                                |                                |                                |                                |
| Contract Dates                                                                             |                                | Apr 2018                       | Apr 2019                       | Apr 2020                                                                         | Apr 2021                       | Apr 2022                       | Apr 2023                            |                                                      |                                |                                |                                |                                |
| Delivery Dates                                                                             |                                | Oct 2019                       | Oct 2020                       | Oct 2021                                                                         | Oct 2022                       | Oct 2023                       | Oct 2024                            |                                                      |                                |                                |                                |                                |
| Manufacturer Name: CSA MK2 Obsolescence NUWC Keyport                                       |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Keyport, WA  |                                                      |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 4                                                     |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 16 |                                                      |                                |                                |                                |                                |
| <b>Dates</b>                                                                               | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                      |                                                      |                                |                                |                                |                                |
| Contract Dates                                                                             | Feb 2017                       | Feb 2018                       | Feb 2019                       |                                                                                  |                                |                                |                                     |                                                      |                                |                                |                                |                                |
| Delivery Dates                                                                             | Jun 2018                       | Jun 2019                       | Jun 2020                       |                                                                                  |                                |                                |                                     |                                                      |                                |                                |                                |                                |
| Manufacturer Name: CSA MK 2 to MK4 RAYTHEON                                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Keyport, WA  |                                                      |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 6                                                     |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 18 |                                                      |                                |                                |                                |                                |
| <b>Dates</b>                                                                               | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                      |                                                      |                                |                                |                                |                                |
| Contract Dates                                                                             | Apr 2017                       | Apr 2018                       | Apr 2019                       | Apr 2020                                                                         | Apr 2021                       | Apr 2022                       | Apr 2023                            |                                                      |                                |                                |                                |                                |
| Delivery Dates                                                                             | Oct 2018                       | Oct 2019                       | Oct 2020                       | Oct 2021                                                                         | Oct 2022                       | Oct 2023                       | Oct 2024                            |                                                      |                                |                                |                                |                                |
| <b>Installation Information</b>                                                            |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                      |                                |                                |                                |                                |
| <b>Method of Implementation:</b> ALT:: Installation Name: WM019 CSA MK2 MOD 0 OBSOLESCENCE |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                      |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                   | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                      | <b>FY 2021</b>                                       | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)      | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                | 8 / 0.400                      | 16 / 0.825                     | 10 / 0.563                     | 5 / 0.286                                                                        | 0 / 0.000                      | 5 / 0.286                      | 3 / 0.175                           | - / -                                                | - / -                          | - / -                          | 0 / 0.000                      | 42 / 2.249                     |
| FY 2017                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                                | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| <b>Total</b>                                                                               | 8 / 0.400                      | 16 / 0.825                     | 10 / 0.563                     | 5 / 0.286                                                                        | 0 / 0.000                      | 5 / 0.286                      | 3 / 0.175                           | - / -                                                | - / -                          | - / -                          | 0 / 0.000                      | 42 / 2.249                     |



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|--------------------------------------------------------------------------------------------|-----|---------|----|----|----|--------------------------------|----|--------------------------------|----|--------------------------------|---------------------------------------------------------------------------|--------------------------------|----|--------------------------------|----|--------------------------------|----|--------------------------------|-----------------|--------------------------------|-----------------------------------------------|--------------------------------|----|--------------------------------|----|--------------------------------|----|--------------------------------|----|--------------------------------|-------|--------------------------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                        |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                | Date: February 2018                           |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3                   |     |         |    |    |    |                                |    |                                |    |                                | P-1 Line Item Number / Title:<br>2210 / Submarine Acoustic Warfare System |                                |    |                                |    |                                |    |                                |                 |                                | Modification Number / Title:<br>2 / CSA WM019 |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                                           |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                | MDAP/MAIS Code: |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Modification Item 1 of 1: CSA WM019                                                        |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Installation Information                                                                   |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Method of Implementation: AIT:: Installation Name: WM019 CSA MK2 MOD 0 OBSOLESCENCE        |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Installation Schedule                                                                      |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
|                                                                                            | PYS | FY 2017 |    |    |    | FY 2018                        |    |                                |    | FY 2019                        |                                                                           |                                |    | FY 2020                        |    |                                |    | FY 2021                        |                 |                                |                                               | FY 2022                        |    |                                |    | FY 2023                        |    |                                |    | TC                             | Tot   |                                |
|                                                                                            |     | Q1      | Q2 | Q3 | Q4 | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2                                                                        | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2              | Q3                             | Q4                                            | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4 |                                |       |                                |
| In                                                                                         | 8   | -       | -  | 16 | -  | -                              | -  | 10                             | -  | -                              | -                                                                         | 5                              | -  | -                              | -  | 3                              | -  | -                              | -               | -                              | -                                             | -                              | -  | -                              | -  | -                              | -  | -                              | -  | -                              | -     | 42                             |
| Out                                                                                        | 8   | -       | -  | 16 | -  | -                              | -  | 10                             | -  | -                              | -                                                                         | 5                              | -  | -                              | -  | 3                              | -  | -                              | -               | -                              | -                                             | -                              | -  | -                              | -  | -                              | -  | -                              | -  | -                              | -     | 42                             |
|                                                                                            |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Method of Implementation: AIT:: Installation Name: WM019 CSAMK2 MOD2 CONVERSION to CSA MK4 |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Installation Cost                                                                          |     |         |    |    |    | Prior Years                    |    | FY 2017                        |    | FY 2018                        |                                                                           | FY 2019 Base                   |    | FY 2019 OCO                    |    | FY 2019 Total                  |    | FY 2020                        |                 | FY 2021                        |                                               | FY 2022                        |    | FY 2023                        |    | To Complete                    |    | Total                          |    |                                |       |                                |
|                                                                                            |     |         |    |    |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |                                                                           | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |                 | Qty (Each) / Total Cost (\$ M) |                                               | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |       | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |       |                                |
| FY 2017                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | 3 / 0.810                      |    | 0 / 0.000                      |    | 3 / 0.810                      |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | 0 / 0.000                      |    | 3 / 0.810                      |    |                                |       |                                |
| FY 2018                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | 5 / 0.810                      |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | 0 / 0.000                      |    | 5 / 0.810                      |    |                                |       |                                |
| FY 2019                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | 2 / 0.556                      |                                               | - / -                          |    | - / -                          |    | 0 / 0.000                      |    | 2 / 0.556                      |    |                                |       |                                |
| FY 2020                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | - / -                          |                                               | 6 / 1.000                      |    | 1 / 0.115                      |    | 0 / 0.000                      |    | 7 / 1.115                      |    |                                |       |                                |
| FY 2021                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | 4 / 0.675                      |    | 0 / 0.000                      |    | 4 / 0.675                      |       |                                |
| FY 2022                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | - / -                          |    | 4 / 0.675                      |    | 4 / 0.675                      |       |                                |
| FY 2023                                                                                    |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | - / -                          |    | 4 / 0.675                      |    | 4 / 0.675                      |       |                                |
| To Complete                                                                                |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | - / -                          |    | Continuing                     |    | Continuing                     |       |                                |
| Total                                                                                      |     |         |    |    |    | - / -                          |    | - / -                          |    | - / -                          |                                                                           | 3 / 0.810                      |    | 0 / 0.000                      |    | 3 / 0.810                      |    | 5 / 0.810                      |                 | 2 / 0.556                      |                                               | 6 / 1.000                      |    | 5 / 0.790                      |    | Continuing                     |    | Continuing                     |    |                                |       |                                |
| Installation Schedule                                                                      |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
|                                                                                            | PYS | FY 2017 |    |    |    | FY 2018                        |    |                                |    | FY 2019                        |                                                                           |                                |    | FY 2020                        |    |                                |    | FY 2021                        |                 |                                |                                               | FY 2022                        |    |                                |    | FY 2023                        |    |                                |    | TC                             | Tot   |                                |
|                                                                                            |     | Q1      | Q2 | Q3 | Q4 | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2                                                                        | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2              | Q3                             | Q4                                            | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4 |                                |       |                                |
| In                                                                                         | -   | -       | -  | -  | -  | -                              | -  | -                              | -  | -                              | 1                                                                         | 1                              | 1  | -                              | 2  | 2                              | 1  | 1                              | -               | 1                              | -                                             | -                              | 6  | -                              | -  | -                              | 5  | -                              | -  | Cont.                          | Cont. |                                |
| Out                                                                                        | -   | -       | -  | -  | -  | -                              | -  | -                              | -  | -                              | 1                                                                         | 1                              | 1  | 2                              | -  | 2                              | 1  | -                              | 1               | -                              | 1                                             | -                              | -  | 6                              | -  | -                              | -  | 5                              | -  | Cont.                          | Cont. |                                |
|                                                                                            |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Method of Implementation: AIT:: Installation Name: WM019 CSAMK3 Kits and Systems           |     |         |    |    |    |                                |    |                                |    |                                |                                                                           |                                |    |                                |    |                                |    |                                |                 |                                |                                               |                                |    |                                |    |                                |    |                                |    |                                |       |                                |
| Installation Cost                                                                          |     |         |    |    |    | Prior Years                    |    | FY 2017                        |    | FY 2018                        |                                                                           | FY 2019 Base                   |    | FY 2019 OCO                    |    | FY 2019 Total                  |    | FY 2020                        |                 | FY 2021                        |                                               | FY 2022                        |    | FY 2023                        |    | To Complete                    |    | Total                          |    |                                |       |                                |
|                                                                                            |     |         |    |    |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |                                                                           | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |                 | Qty (Each) / Total Cost (\$ M) |                                               | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |       | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                |     |         |    |    |    | - / -                          |    | - / -                          |    | 2 / 0.200                      |                                                                           | 1 / 0.130                      |    | 0 / 0.000                      |    | 1 / 0.130                      |    | - / -                          |                 | - / -                          |                                               | - / -                          |    | - / -                          |    | 0 / 0.000                      |    | 3 / 0.330                      |    |                                |       |                                |

**UNCLASSIFIED**

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                       |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2210 / Submarine Acoustic Warfare System |                                       |                                       |                                       |                                       |                        |           |           |                |           | <b>Modification Number / Title:</b><br>2 / CSA WM019 |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CSA WM019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: WM019 CSAMK3 Kits and Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                   | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 4 / 0.460                             | - / -                                 | - / -                                                                            | - / -                                 | 0 / 0.000                             | 4 / 0.460                             |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 3 / 0.345                             | - / -                                                                            | - / -                                 | 0 / 0.000                             | 3 / 0.345                             |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 8 / 0.920                                                                        | - / -                                 | 0 / 0.000                             | 8 / 0.920                             |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | 4 / 1.726                             | 3 / 0.345                             | 7 / 2.071                             |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | 4 / 0.460                             | 4 / 0.460                             |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | 6 / 1.208                             | 6 / 1.208                             |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | Continuing                            | Continuing                            |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                                 | - / -                                 | 2 / 0.200                             | 1 / 0.130                             | 0 / 0.000                             | 1 / 0.130                             | 4 / 0.460                             | 3 / 0.345                             | 8 / 0.920                                                                        | 4 / 1.726                             | Continuing                            | Continuing                            |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                                   |                                       |                                       |                                       | <b>FY 2020</b>                        |                        |           |           | <b>FY 2021</b> |           |                                                      |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                        | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                            | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -          | -                                     | -                                     | -                                     | -                                     | 2                                     | -                                     | -                                     | -                                     | 1                                                                                | -                                     | -                                     | -                                     | 4                                     | -                      | -         | -         | -              | 1         | 2                                                    | -         | 1              | 2         | 2         | 3         | -              | 4         | -         | -         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -          | -                                     | -                                     | -                                     | -                                     | -                                     | 2                                     | -                                     | -                                     | -                                                                                | 1                                     | -                                     | -                                     | -                                     | 4                      | -         | -         | -              | -         | 1                                                    | 2         | -              | 1         | 2         | 2         | -              | -         | 4         | -         | Cont.     | Cont.      |
| <b>Footnotes:</b><br><sup>(13)</sup> For FY18, accommodated internal shifts to address continuing TI/APB changes: Increased VIRGINIA Block I/II OPN procurements of CSA MK4 systems as part of the Economical Order Quantity (EOQ) maximization and increase CSA MK3 Engineering Change Instruction (ECI) will be installed and 3 CSA MK4 installation are funded and the SEAWOLF SHIPALT NRE will begin.<br><sup>(14)</sup> The changes needed to include SEAWOLF submarine class to the CSA MK3 connection to SWFTS in FY21.<br><sup>(15)</sup> FY18 accommodated increase in Installation and Checkout (INCO) spares reducing the FY19 costs to support the FY19 installations.<br><sup>(16)</sup> Economic order quantities in FY18 afforded us the ability to procure 3 additional CSA MK4 units for installation in FY19. FY20 reflects an additional full new system procurement (restored from previous FY17 reduction (\$430K of the \$1.0M shown)). The balance of (\$570K) procures six (6) upgrade kits and software at EOQ pricing of approx. \$95K/kit. Cost estimate for upgrade kits from FY21-23 changed to \$168K due to anticipated increased complexity and assumed actual unit costs. Two units were procured in FY16 but they were environmental qualification test (EQT) units that were never delivered to the Fleet.<br><sup>(17)</sup> Procurement of CSA MK3 kits was updated in order to support planned installations, upgrades and modernizations of fielded systems on SSGN and VIRGINIA Block III/IV.<br><sup>(18)</sup> In FY19, NRE for CSA MK4 not needed and was reallocated within CSA Subhead.<br><sup>(19)</sup> Installations were updated to reflect the current install schedule on Naval Tool for Interoperability Risk Assessment (NTIRA).<br><sup>(22)</sup> VIRGINIA Block I/II OPN procurements of initial CSA MK4 to maximize the Economical Order Quantities (EOQ) from 10 systems in FY17-FY20 at \$5.65M to equivalent 10 systems in FY17-FY19 at \$4.65M. |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                      |           |                |           |           |           |                |           |           |           |           |            |

# UNCLASSIFIED

**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                  |                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2213 / Surface Ship Torpedo Def (SSTD) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|

|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years    | FY 2017      | FY 2018       | FY 2019 Base  | FY 2019 OCO  | FY 2019 Total | FY 2020       | FY 2021       | FY 2022       | FY 2023       | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 158.231        | 6.893        | 12.867        | 11.277        | 0.000        | 11.277        | 12.831        | 13.104        | 13.349        | 13.636        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 158.231        | 6.893        | 12.867        | 11.277        | 0.000        | 11.277        | 12.831        | 13.104        | 13.349        | 13.636        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>158.231</b> | <b>6.893</b> | <b>12.867</b> | <b>11.277</b> | <b>0.000</b> | <b>11.277</b> | <b>12.831</b> | <b>13.104</b> | <b>13.349</b> | <b>13.636</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                |              |               |               |              |               |               |               |               |               |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -              | 0.535        | 0.853         | 0.799         | -            | 0.799         | 1.239         | 1.817         | 2.007         | 2.203         | Continuing        | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                    | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                        | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |

## Description:

The FY 2019 funding request was reduced by \$0.234 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

Surface Ship Torpedo Defense (SSTD) provides a layered torpedo defense capability to protect surface ships. Under the OPN appropriation, SSTD funds the AN/SLQ-25 (NIXIE) system and the Torpedo Warning System (TWS). The AN/SLQ-25 (NIXIE) system provides towed persistent countermeasure capability. The TWS provides automated torpedo detection, classification, localization, and alertment capability.

WL101 AN/SLQ-25A UPGRADE KITS: Procures the upgrade of the AN/SLQ-25 (NIXIE) towed acoustic countermeasure system to the AN/SLQ-25C configuration. The AN/SLQ-25C enhances ship survivability against future torpedo threats. No future AN/SLQ-25C upgrade kit procurement is planned.

WL102 Torpedo Warning System (TWS): Procures the Torpedo Warning System (TWS). TWS is an automated Torpedo Detection, Classification, and Localization (TDCL) system that generates warning alerts on incoming threat torpedoes. The TWS consists of towed active acoustic source and receive sensors, processing cabinets and workstations, and Countermeasure Anti-Torpedo (CAT) ready stows mounted port and starboard. The TWS subfunctional groups are called the Target Acquisition Group (TAG), Tactical Control Group (TCG), and Ready Stow Group (RSG).

WL106 AN/SLQ-25 ENGINEERING CHANGES: The AN/SLQ-25 NIXIE is the Navy's primary Surface Ship Torpedo Defense (SSTD) system, providing towed persistent countermeasure capability to protect over 185 surface ships from torpedoes. WL106, AN/SLQ-25 ENGINEERING CHANGES, consists of two major efforts in FY 2019: (1) Engineering Changes for AN/SLQ-25C and earlier variants and (2) continuation of the system technical refresh, started in FY 2018, that will result in the new configuration baseline, AN/SLQ-25E. The following details each of the two major efforts. (1) Funding for AN/SLQ-25 Engineering Changes provides for hardware and software configuration changes to current production baselines to resolve emergent hardware obsolescence issues, provides for software updates, and provides for cyber security and program protection updates. These recurring efforts include investigation and resolution of AN/SLQ-25 Trouble Reports, including those resulting from service-identified issues, some of which could render key system functions inoperable if not corrected. These efforts are critical to the extension of the military service life of the system until all AN/SLQ-25C systems are modified to AN/SLQ-25E. (2) As a result of costly hardware obsolescence issues with the AN/SLQ-25C baseline that have precluded the continued production of this variant, a technical refresh began in FY 2018 under the nomenclature AN/SLQ-25E. The AN/SLQ-25E updates the hardware and software architecture to a Commercial Off The Shelf (COTS-based), open, and modular configuration. The nonrecurring design efforts in FY 2019 are needed to deliver AN/SLQ-25E systems to new construction ships starting in FY 2020. The following new construction ships will be the first groups to receive the AN/SLQ-25E system: LPD-29 and T-AO 207

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                    |                                        | Date: February 2018                                                     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment                                                                                                                                                                                                                                                     |                                        | P-1 Line Item Number / Title:<br>2213 / Surface Ship Torpedo Def (SSTD) |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                             | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                                     |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |                                                                         |
| in FY 2020; and DDG 128, T-AO 208, DDG 129, and T-AO 209 in FY 2021. Procurement of AN/SLQ-25E system upgrade kits begins in FY2020 to resolve AN/SLQ-25C obsolescence issues by back fitting systems.                                                                                                                                                                                                                        |                                        |                                                                         |
| WL830 PRODUCTION ENGINEERING (IN-HOUSE): Funding provides specification preparation and validation, production planning, contract deliverable monitoring, prime contractor monitoring for cost, schedule, and performance and Integrated Logistics Support (ILS) planning, review and evaluation of obsolescence issues, and coordination of government furnished information (GFI) and government furnished equipment (GFE). |                                        |                                                                         |
| WL840 QUALITY ASSURANCE: Funding under this cost code provides for quality assurance efforts including conducting quality assurance reviews of the contractor and subcontractors, documentation indicating contractor conformity to product performance requirements, and review of objective quality evidence.                                                                                                               |                                        |                                                                         |
| WL860 ACCEPTANCE TEST & ENGINEERING: Funding under this cost code provides for production acceptance of contractor hardware. Acceptance testing includes government acceptance testing support with operationally trained subject matter experts and software support engineers.                                                                                                                                              |                                        |                                                                         |
| WL900 PRODUCTION ENGINEERING (OUT-HOUSE): Consulting services for FY 2012 and prior provide production monitoring, installation planning and coordination support.                                                                                                                                                                                                                                                            |                                        |                                                                         |
| WL900 CONSULTING SERVICES: Funding under this cost code provides for contractor support to the program office for production monitoring, installation planning and coordination support.                                                                                                                                                                                                                                      |                                        |                                                                         |
| WL905 PRODUCTION ENGINEERING CONTRACTOR: Funding under this cost code provides for production engineering tasks performed by the hardware contractor.                                                                                                                                                                                                                                                                         |                                        |                                                                         |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------|-----------------------------------------------|-----------------------|--------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                           |                                       |                    |                                               |                       |                                                                                |                                              | <b>Date:</b> February 2018                   |                                              |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment                                                                                                                                                               |                                       |                    |                                               |                       | <b>P-1 Line Item Number / Title:</b><br>2213 / Surface Ship Torpedo Def (SSTD) |                                              |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                    |                                       |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                                                                | <b>Other Related Program Elements:</b> N/A   |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                        |                                       |                    |                                               |                       |                                                                                |                                              |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                    |                                       |                    |                                               |                       | <b>Prior Years</b>                                                             | <b>FY 2017</b>                               | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                         | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                   | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                       | Surface Ship Torpedo Def (SSTD)       |                    |                                               |                       | - / 153.402                                                                    | - / 3.532                                    | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 1 / WL106 ENGINEERING CHANGES (TBD)   |                    |                                               |                       | - / 4.829                                                                      | - / 3.361                                    | - / 12.867                                   | - / 11.277                                   | - / 0.000                                    | - / 11.277                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                 | <b>Total Gross/Weapon System Cost</b> |                    |                                               |                       | <b>- / 158.231</b>                                                             | <b>- / 6.893</b>                             | <b>- / 12.867</b>                            | <b>- / 11.277</b>                            | <b>- / 0.000</b>                             | <b>- / 11.277</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                    |                                       |                    |                                               |                       | <b>FY 2020</b>                                                                 | <b>FY 2021</b>                               | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                         | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                   | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                       | Surface Ship Torpedo Def (SSTD)       |                    |                                               |                       | - / -                                                                          | - / -                                        | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 1 / WL106 ENGINEERING CHANGES (TBD)   |                    |                                               |                       | - / 12.831                                                                     | - / 13.104                                   | - / 13.349                                   | - / 13.636                                   | Continuing                                   | Continuing                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                 | <b>Total Gross/Weapon System Cost</b> |                    |                                               |                       | <b>- / 12.831</b>                                                              | <b>- / 13.104</b>                            | <b>- / 13.349</b>                            | <b>- / 13.636</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.<br>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding. |                                       |                    |                                               |                       |                                                                                |                                              |                                              |                                              |                                              |                                              |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   | Date: February 2018                                                       |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------------------------------------------------------------|----------------|------------|-------------------|----------------|------------|-------------------|---------------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3    |       |                |                |            |                   |                |            | P-1 Line Item Number / Title:<br>2213 / Surface Ship Torpedo Def (SSTD) |                |            |                   |                |            |                   | Aggregated Items Title:<br>Surface Ship Torpedo Def (SSTD) <sup>(1)</sup> |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                                                                         | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                                               |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                                       | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                            | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) WL101 AN/SLQ-25A UPGRADE KITS                                            |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 1.1) 25A Modification Kits                                                  | A     |                | 528,387.85     | 214        | 113.075           | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 1) WL101 AN/SLQ-25A UPGRADE KITS                                  |       |                | -              | -          | 113.075           | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 3) WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE                        |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 3.1) WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE                      | A     |                | 3,788K         | 1          | 3.788             | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 3) WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE              |       |                | -              | -          | 3.788             | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 4) WL104 AN-SLQ-25D EC-2 ()                                                 |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 4.1) AN-SLQ-25C EC-2 ()                                                     | A     |                | 13,447K        | 1          | 13.447            | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 4) WL104 AN-SLQ-25D EC-2 ()                                       |       |                | -              | -          | 13.447            | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 5) WL105 AN-SLQ-25C CVN BATTLE SPARE                                        |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 5.1) HARDWARE                                                               | A     |                | -              | -          | 1.500             | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 5) WL105 AN-SLQ-25C CVN BATTLE SPARE                              |       |                | -              | -          | 1.500             | -              | -          | -                                                                       | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 6) WL106 ENGINEERING CHANGE <sup>(2)</sup>                                  |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 6.1) EC-1 UPDATE SLQ-25                                                     | A     |                | -              | -          | 1.400             | -              | -          | 0.700                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 6.2) TECH REFRESH EC SLQ-25                                                 | A     |                | -              | -          | 0.468             | -              | -          | 0.468                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 6) WL106 ENGINEERING CHANGE                                       |       |                | -              | -          | 1.868             | -              | -          | 1.168                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 7) WL830 PRODUCTION ENGINEERING                                             |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 7.1) PRODUCTION ENGINEERING IN-HOUSE                                        | A     |                | -              | -          | 12.917            | -              | -          | 0.364                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 7) WL830 PRODUCTION ENGINEERING                                   |       |                | -              | -          | 12.917            | -              | -          | 0.364                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 8) WL840 QUALITY ASSURANCE                                                  |       |                |                |            |                   |                |            |                                                                         |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 8.1) QUALITY ASSURANCE (IN-HOUSE)                                           | A     |                | -              | -          | 1.064             | -              | -          | 0.200                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 8.2) Torpedo Warning System (TWS) Quality Assurance                         | A     |                | -              | -          | -                 | -              | -          | 0.212                                                                   | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                                                                         |            |                   |                |            |                   |                |            |                   | Date: February 2018                                                       |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|-------------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|---------------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3    |       |                |                |            |                   | P-1 Line Item Number / Title:<br>2213 / Surface Ship Torpedo Def (SSTD) |            |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>Surface Ship Torpedo Def (SSTD) <sup>(1)</sup> |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                                 |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                                               |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                          | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                            | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Subtotal: 8) WL840 QUALITY ASSURANCE                                        |       |                | -              | -          | 1.064             | -                                                                       | -          | 0.412             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 9) WL860 ACCEPTANCE TEST AND ENGINEERING                                    |       |                |                |            |                   |                                                                         |            |                   |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 9.1) ACCEPTANCE TESTING & ENGINEERING                                       | A     |                | -              | -          | 1.324             | -                                                                       | -          | 0.500             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 9.2) TWS Acceptance Testing & Engineering                                   | A     |                | -              | -          | -                 | -                                                                       | -          | 0.496             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 9) WL860 ACCEPTANCE TEST AND ENGINEERING                          |       |                | -              | -          | 1.324             | -                                                                       | -          | 0.996             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 10) WL900 SERVICES                                                          |       |                |                |            |                   |                                                                         |            |                   |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 10.1) PRODUCTION ENGINEERING (OUT-HOUSE)                                    | A     |                | -              | -          | 0.925             | -                                                                       | -          | -                 | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 10.2) CONSULTING SERVICES                                                   | A     |                | -              | -          | 1.694             | -                                                                       | -          | 0.250             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 10) WL900 SERVICES                                                |       |                | -              | -          | 2.619             | -                                                                       | -          | 0.250             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| 11) WL905 PRODUCTION ENGINEERING CONTRACTOR                                 |       |                |                |            |                   |                                                                         |            |                   |                |            |                   |                |            |                   |                                                                           |            |                   |                |            |                   |
| 11.1) PRODUCTION ENGINEERING CONTRACTOR                                     | A     |                | -              | -          | 1.800             | -                                                                       | -          | 0.342             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Subtotal: 11) WL905 PRODUCTION ENGINEERING CONTRACTOR                       |       |                | -              | -          | 1.800             | -                                                                       | -          | 0.342             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |
| Total                                                                       |       |                | -              | -          | 153.402           | -                                                                       | -          | 3.532             | -              | -          | -                 | -              | -          | -                 | -                                                                         | -          | -                 | -              | -          | -                 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

**Footnotes:**

<sup>(1)</sup> Moved WL101. WL103, WL104 from P-3a to P-40A since funding is in prior years.

<sup>(2)</sup> Moved WL 106 to P-3a after FY 17 to show all AN/SLQ-25 engineering change costs in one exhibit. After FY17 AN/SLQ-25 EC-1 Update and Tech Refresh moved to the P-3a Exhibit for WL106 to show all AN/SLQ-25 engineering change costs in one exhibit.

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|---------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------|--|--|----------------------------|----------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                                |  |  | <b>Date:</b> February 2018 |                                                                      |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2213 / Surface Ship Torpedo Def (SSTD) |  |  |                            | <b>Modification Number / Title:</b><br>1 / WL106 ENGINEERING CHANGES |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 4.829       | 3.361   | 12.867  | 11.277       | 0.000       | 11.277          | 12.831  | 13.104  | 13.349  | 13.636  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 4.829       | 3.361   | 12.867  | 11.277       | 0.000       | 11.277          | 12.831  | 13.104  | 13.349  | 13.636  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 4.829       | 3.361   | 12.867  | 11.277       | 0.000       | 11.277          | 12.831  | 13.104  | 13.349  | 13.636  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

[WL106 Engineering Changes SLQ-25] WL106 AN/SLQ-25 ENGINEERING CHANGES: The AN/SLQ-25 NIXIE is the Navy's primary Surface Ship Torpedo Defense (SSTD) system, providing towed persistent countermeasure capability to protect over 185 surface ships from torpedoes. WL106, AN/SLQ-25 ENGINEERING CHANGES, consists of two major efforts in FY 2019: (1) Engineering Changes for AN/SLQ-25C and earlier variants and (2) continuation of the system technical refresh, started in FY 2018, that will result in the new configuration baseline, AN/SLQ-25E. The following details each of the two major efforts. (1) Funding for AN/SLQ-25 Engineering Changes provides for hardware and software configuration changes to current production baselines to resolve emergent hardware obsolescence issues, provides for software updates, and provides for cyber security and program protection updates. These recurring efforts include investigation and resolution of AN/SLQ-25 Trouble Reports, including those resulting from service-identified issues, some of which could render key system functions inoperable if not corrected. These efforts are critical to the extension of the military service life of the system until all AN/SLQ-25C systems are modified to AN/SLQ-25E. (2) As a result of costly hardware obsolescence issues with the AN/SLQ-25C baseline that have precluded the continued production of this variant, a technical refresh began in FY 2018 under the nomenclature AN/SLQ-25E. The AN/SLQ-25E updates the hardware and software architecture to a Commercial Off The Shelf (COTS-based), open, and modular configuration. The nonrecurring design efforts in FY 2019 are needed to deliver AN/SLQ-25E systems to new construction ships starting in FY 2020. The following new construction ships will be the first groups to receive the AN/SLQ-25E system: LPD-29 and T-AO 207 in FY 2020; and DDG 128, T-AO 208, DDG 129, and T-AO 209 in FY 2021. Procurement of AN/SLQ-25E system upgrade kits begins in FY2020 to resolve AN/SLQ-25C obsolescence issues by back fitting systems.



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|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                |                                                                         |                                |                                |                                |                                | Date: February 2018                                           |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3 |                                |                                |                                | P-1 Line Item Number / Title:<br>2213 / Surface Ship Torpedo Def (SSTD) |                                |                                |                                |                                | Modification Number / Title:<br>1 / WL106 ENGINEERING CHANGES |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                         |                                |                                | MDAP/MAIS Code:                |                                |                                                               |                                |                                |                                |  |
| Models of Systems Affected: [No Model Specified]                         |                                |                                | Modification Type: TBD         |                                                                         |                                |                                |                                |                                | Related RDT&E PEs:                                            |                                |                                |                                |  |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                            | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                       | FY 2023                        | To Complete                    | Total                          |  |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                              |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| Modification Item 1 of 1: WL106 ENGINEERING CHANGES                      |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| B Kits                                                                   |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| Recurring                                                                |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| 1.1.1) WL106 Engineering Changes SLQ-25 - NonOrganic                     | - / -                          | - / -                          | - / -                          | - / -                                                                   | - / -                          | - / -                          | 3 / 2.886                      | 5 / 5.406                      | 3 / 3.016                                                     | 5 / 6.196                      | Continuing                     | Continuing                     |  |
| 1.1.2) WL106 ECPs - Organic                                              | - / -                          | - / -                          | - / -                          | - / -                                                                   | - / -                          | - / -                          | - / 0.893                      | - / 0.910                      | - / 0.927                                                     | - / 0.951                      | Continuing                     | Continuing                     |  |
| 1.1.4) WL106 TECH REFRESH EC SLQ-25 - Organic                            | - / -                          | - / -                          | - / 0.718                      | - / 0.486                                                               | - / -                          | - / 0.486                      | - / 0.496                      | - / 0.506                      | - / 0.516                                                     | - / 0.529                      | - / -                          | - / 3.251                      |  |
| 1.1.5) WL106 EC-1 UPDATE SLQ-25 - Organic                                | - / -                          | - / -                          | - / 0.713                      | - / 0.713                                                               | - / -                          | - / 0.713                      | - / 0.727                      | - / 0.756                      | - / 0.772                                                     | - / 0.796                      | - / -                          | - / 4.477                      |  |
| Subtotal: Recurring                                                      | - / 0.000                      | - / -                          | - / 1.431                      | - / 1.199                                                               | - / -                          | - / 1.199                      | - / 5.002                      | - / 7.578                      | - / 5.231                                                     | - / 8.472                      | Continuing                     | Continuing                     |  |
| Non-Recurring                                                            |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| 1.2.1) WL106 AN/SLQ-25 Tech Refresh - Non - Organic                      | - / 4.829                      | - / 3.361                      | - / 5.400                      | - / 4.270                                                               | - / -                          | - / 4.270                      | - / 2.112                      | - / -                          | - / -                                                         | - / -                          | - / -                          | - / 19.972                     |  |
| 1.2.2) WL106 AN/SLQ-25 Tech Refresh - Organic                            | - / -                          | - / -                          | - / 4.206                      | - / 2.264                                                               | - / -                          | - / 2.264                      | - / 1.056                      | - / -                          | - / -                                                         | - / -                          | - / -                          | - / 7.526                      |  |
| Subtotal: Non-Recurring                                                  | - / 4.829                      | - / 3.361                      | - / 9.606                      | - / 6.534                                                               | - / -                          | - / 6.534                      | - / 3.168                      | - / -                          | - / -                                                         | - / -                          | - / 0.000                      | - / 27.498                     |  |
| Subtotal: WL106 ENGINEERING CHANGES                                      | - / 4.829                      | - / 3.361                      | - / 11.037                     | - / 7.733                                                               | - / -                          | - / 7.733                      | 3 / 8.170                      | 5 / 7.578                      | 3 / 5.231                                                     | 5 / 8.472                      | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                            | - / 4.829                      | - / 3.361                      | - / 11.037                     | - / 7.733                                                               | - / -                          | - / 7.733                      | - / 8.170                      | - / 7.578                      | - / 5.231                                                     | - / 8.472                      | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                         |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| 2.1) WL830 AN/SLQ-25 Production Engineering In House <sup>(3)</sup>      | - / -                          | - / -                          | - / 0.514                      | - / 0.860                                                               | - / -                          | - / 0.860                      | - / 1.616                      | - / 1.235                      | - / 0.773                                                     | - / 0.700                      | Continuing                     | Continuing                     |  |
| 2.2) WL840 AN/SLQ-25 Quality Assurance                                   | - / -                          | - / -                          | - / 0.204                      | - / 0.400                                                               | - / -                          | - / 0.400                      | - / 0.861                      | - / 0.889                      | - / 0.891                                                     | - / 0.865                      | Continuing                     | Continuing                     |  |
| 2.3) WL860 AN/SLQ-25 Acceptance Test and Engineering <sup>(4)</sup>      | - / -                          | - / -                          | - / 0.509                      | - / 0.829                                                               | - / -                          | - / 0.829                      | - / 0.700                      | - / 0.635                      | - / 0.645                                                     | - / 0.732                      | Continuing                     | Continuing                     |  |
| 2.4) WL900 AN/SLQ-25 Consulting Services                                 | - / -                          | - / -                          | - / 0.255                      | - / 1.100                                                               | - / -                          | - / 1.100                      | - / 1.122                      | - / 1.144                      | - / 1.167                                                     | - / 1.182                      | Continuing                     | Continuing                     |  |
| 2.5) WL905 AN/SLQ-25 Production Engineering Contractor                   | - / -                          | - / -                          | - / 0.348                      | - / 0.355                                                               | - / -                          | - / 0.355                      | - / 0.362                      | - / 0.369                      | - / 0.377                                                     | - / 0.385                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                        | - / 0.000                      | - / -                          | - / 1.830                      | - / 3.544                                                               | - / -                          | - / 3.544                      | - / 4.661                      | - / 4.272                      | - / 3.853                                                     | - / 3.864                      | Continuing                     | Continuing                     |  |
| Installation                                                             |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| Modification Item 1 of 1: WL106 ENGINEERING CHANGES                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                               | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 1.254                      | - / 4.265                                                     | - / 1.300                      | - / 4.350                      | - / 11.169                     |  |
| Subtotal: Installation                                                   | - / 0.000                      | - / -                          | - / -                          | - / -                                                                   | - / -                          | - / -                          | - / -                          | - / 1.254                      | - / 4.265                                                     | - / 1.300                      | - / 4.350                      | - / 11.169                     |  |
| Total                                                                    |                                |                                |                                |                                                                         |                                |                                |                                |                                |                                                               |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                        | 4.829                          | 3.361                          | 12.867                         | 11.277                                                                  | 0.000                          | 11.277                         | 12.831                         | 13.104                         | 13.349                                                        | 13.636                         | Continuing                     | Continuing                     |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------|-----------|-----------|----------------|-----------|----------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|---------------------------------|------------|----|--|--|--|--|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                     |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                                                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2213 / Surface Ship Torpedo Def (SSTD) |                                       |                                       |                                       |                                       |                        |           |           |                |           | <b>Modification Number / Title:</b><br>1 / WL106 ENGINEERING CHANGES |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>Modification Item 1 of 1:</b> WL106 ENGINEERING CHANGES                                                                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>Installation Information</b>                                                                                                                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: WL106 Engineering Changes SLQ-25                                                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>Installation Cost</b>                                                                                                                                                                                                 |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                 | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                          |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| Prior Years                                                                                                                                                                                                              |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2017                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2018                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2019                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2020                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 3 / 1.254                             | - / -                                                                          | - / -                                 | 0 / 0.000                             | 3 / 1.254                             |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2021                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 5 / 4.265                                                                      | - / -                                 | 0 / 0.000                             | 5 / 4.265                             |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2022                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | 3 / 1.300                             | 0 / 0.000                             | 3 / 1.300                             |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| FY 2023                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | 5 / 4.350                             | 5 / 4.350                             |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| To Complete                                                                                                                                                                                                              |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | 0 / 0.000                             | - / -                                 |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| Total                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 3 / 1.254                             | 5 / 4.265                                                                      | 3 / 1.300                             | 5 / 4.350                             | 16 / 11.169                           |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
| <b>Installation Schedule</b>                                                                                                                                                                                             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                                 |                                       |                                       |                                       | <b>FY 2020</b>                        |                        |           |           | <b>FY 2021</b> |           |                                                                      |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b>                       | <b>Tot</b> |    |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                          |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                      | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                            | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |                                 |            |    |  |  |  |  |  |  |  |
| In                                                                                                                                                                                                                       | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                              | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | 1         | 2                                                                    | -         | -              | 1         | 2         | 2         | -              | 1         | 2         | -         | 5                               | 16         |    |  |  |  |  |  |  |  |
| Out                                                                                                                                                                                                                      | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                              | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | -         | 1                                                                    | 2         | -              | -         | 1         | 2         | 2              | -         | 1         | 2         | -                               | 5          | 16 |  |  |  |  |  |  |  |
| <b>Method of Implementation (Organic):</b> WL106 ECPs - Not Installed                                                                                                                                                    |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           | <b>Installation Quantity:</b> 0 |            |    |  |  |  |  |  |  |  |
| <b>Footnotes:</b><br><sup>(3)</sup> Moved Support Costs to P-3a from P-40A to show all costs associated with Engineering Changes.<br><sup>(4)</sup> Increase in FY19 due to establishing the acceptance test procedures. |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                                      |           |                |           |           |           |                |           |           |           |                                 |            |    |  |  |  |  |  |  |  |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy | <b>Date:</b> February 2018 |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2225 / Fixed Surveillance System |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|

|                                                   |                                        |                                     |
|---------------------------------------------------|----------------------------------------|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---------------------------------------------------|----------------------------------------|-------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|------------|
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 1,265.794   | 145.701 | 300.102 | 237.780      | 56.950      | 294.730       | 103.603 | 360.611 | 104.691 | 107.049 | Continuing  | Continuing |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 1,265.794   | 145.701 | 300.102 | 237.780      | 56.950      | 294.730       | 103.603 | 360.611 | 104.691 | 107.049 | Continuing  | Continuing |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 1,265.794   | 145.701 | 300.102 | 237.780      | 56.950      | 294.730       | 103.603 | 360.611 | 104.691 | 107.049 | Continuing  | Continuing |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |               |         |         |         |         |             |            |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Flyaway Unit Cost <i>(\$ in Dollars)</i>                                                                                                      | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |

**Description:**

The FY 2019 funding request was reduced by \$1.380 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

[P40A / Classified (2225)]: Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

[P40A / Classified (222506)]: Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |             |       |                                               |                                          |                                                                          |                                            | <b>Date:</b> February 2018               |                                          |                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|-------|-----------------------------------------------|------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |       |                                               |                                          | <b>P-1 Line Item Number / Title:</b><br>2225 / Fixed Surveillance System |                                            |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       |             |       | <b>Program Elements for Code B Items:</b> N/A |                                          |                                                                          | <b>Other Related Program Elements:</b> N/A |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       |             |       |                                               |                                          |                                                                          |                                            |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |             |       |                                               | Prior Years                              | FY 2017                                                                  | FY 2018                                    | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Title*                                | Subexhibits | ID CD | MDAP/MAIS Code                                | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                 | Quantity / Total Cost<br>(Each) / (\$ M)   | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fixed Surveillance System             |             |       |                                               | - / 1,265.794                            | - / 145.701                                                              | - / 300.102                                | - / 237.780                              | - / 56.950                               | - / 294.730                              |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Total Gross/Weapon System Cost</b> |             |       |                                               | <b>- / 1,265.794</b>                     | <b>- / 145.701</b>                                                       | <b>- / 300.102</b>                         | <b>- / 237.780</b>                       | <b>- / 56.950</b>                        | <b>- / 294.730</b>                       |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |       |                                               |                                          |                                                                          |                                            |                                          |                                          |                                          |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |             |       |                                               |                                          |                                                                          |                                            |                                          |                                          |                                          |
| <p><b>Justification:</b><br/>           Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.</p> <p>The FY2019 funding request was reduced by \$1.380M to reflect the Department of the Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, and more efficient government.</p> <p>OCO:<br/>           Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.</p> |                                       |             |       |                                               |                                          |                                                                          |                                            |                                          |                                          |                                          |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                                                                   |            |                   |                |            |                   |                |            |                   | Date: February 2018                                  |            |                   |                |            |                   |         |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|-------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|---------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3    |       |                |                |            |                   | P-1 Line Item Number / Title:<br>2225 / Fixed Surveillance System |            |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>Fixed Surveillance System |            |                   |                |            |                   |         |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                           |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                          |            |                   | FY 2019 Total  |            |                   |         |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                    | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                       | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |         |
| 1) Classified                                                               |       |                |                |            |                   |                                                                   |            |                   |                |            |                   |                |            |                   |                                                      |            |                   |                |            |                   |         |
| 1.1) Classified (2225)                                                      |       | A              |                | -          | -                 | 1,186.865                                                         | -          | -                 | 138.699        | -          | -                 | 293.118        | -          | -                 | 230.781                                              | -          | -                 | 56.950         | -          | -                 | 287.731 |
| 1.2) Classified (222506)                                                    |       | A              |                | -          | -                 | 78.929                                                            | -          | -                 | 7.002          | -          | -                 | 6.984          | -          | -                 | 6.999                                                | -          | -                 | -              | -          | -                 | 6.999   |
| Subtotal: 1) Classified                                                     |       |                |                | -          | -                 | 1,265.794                                                         | -          | -                 | 145.701        | -          | -                 | 300.102        | -          | -                 | 237.780                                              | -          | -                 | 56.950         | -          | -                 | 294.730 |
| Total                                                                       |       |                |                | -          | -                 | 1,265.794                                                         | -          | -                 | 145.701        | -          | -                 | 300.102        | -          | -                 | 237.780                                              | -          | -                 | 56.950         | -          | -                 | 294.730 |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------|--------------------|----------------------|--------------------------------------------------------|-------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                |                    |                |                |                                               |                    |                      |                                                        |                                                 |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                                 |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                         |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                        | <b>Other Related Program Elements:</b> 0204311N |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                             |                    |                |                |                                               |                    |                      |                                                        |                                                 |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                         | <b>FY 2021</b>                                  | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                    | -                  | -              | -              | -                                             | -                  | -                    | -                                                      | -                                               | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                               | 100.889            | 43.743         | 30.180         | 57.872                                        | 0.000              | 57.872               | 22.084                                                 | 18.188                                          | 24.462         | 24.918                     | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                      | -                                               | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                  | 100.889            | 43.743         | 30.180         | 57.872                                        | 0.000              | 57.872               | 22.084                                                 | 18.188                                          | 24.462         | 24.918                     | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                      | -                                               | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                      | <b>100.889</b>     | <b>43.743</b>  | <b>30.180</b>  | <b>57.872</b>                                 | <b>0.000</b>       | <b>57.872</b>        | <b>22.084</b>                                          | <b>18.188</b>                                   | <b>24.462</b>  | <b>24.918</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                    |                    |                |                |                                               |                    |                      |                                                        |                                                 |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                         | -                  | -              | 2.111          | 2.782                                         | -                  | 2.782                | 3.611                                                  | 7.600                                           | 2.990          | 2.753                      | Continuing         | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                       | -                  | -              | -              | -                                             | -                  | -                    | -                                                      | -                                               | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                           | -                  | -              | -              | -                                             | -                  | -                    | -                                                      | -                                               | -              | -                          | -                  | -                 |

**Description:**  
 The FY 2019 funding request was reduced by \$.395 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

PROGRAM COVERAGE: Surveillance Towed Array Sensor System (SURTASS) is the mobile, tactical, and strategic arm of the Navy's undersea surveillance capability that provides deep ocean and littoral acoustic detection and cueing for tactical weapon platforms against diesel and nuclear submarines as well as surface vessels in any given Area of Operations worldwide. Dedicated Anti-Submarine Warfare (ASW) T-AGOS ships tow long acoustic arrays that collect acoustic data and relay that data to shore facilities via satellites for processing and fusion of the resulting contact data with other sensors. Currently, there are five Small Waterplane Area Twin Hull (SWATH) T-AGOS ships operating in the Pacific area. Ship configurations are:

T-AGOS 22 USNS LOYAL (1), supports passive operations using the TB-29A Twinline (TL-29A) array, providing improved detection and classification capability. This ship class uses the Integrated Common Processor (ICP) signal processing and display system common with the SSN Advanced Rapid Commercial Off the Shelf (COTS) Insertion (ARCI) Sonar Processing System;

Three (3) T-AGOS SWATH-P platforms, T-AGOS 19 USNS VICTORIOUS, T-AGOS 20 USNS ABLE, and T-AGOS 21 USNS EFFECTIVE, supporting passive/active operations, configured with the ICP processing and display system, the TL-29A array, and the Compact Low Frequency Active (CLFA) transmit capability;

One (1) Low Frequency Active (LFA) equipped ship, T-AGOS 23 USNS IMPECCABLE, configured with the ICP Processing and Display system, the TL-29A array, and the Low Frequency Active (LFA) transmit capability. The active capability provides greatly improved detection against diesel submarines as well as the quiet nuclear submarine threat.

In addition to the five platforms described above, two (2) shore sites are configured with the ICP processing and display suites to receive the T-AGOS acoustic data via SHF satellite communication links. One of the two shore sites is equipped with two (2) SURTASS Team Trainers (STTs) to support Home Port Training Periods.

A cost sharing agreement with Japan also provides a shore site and two Japanese SWATH ships with similar capability to the T-AGOS SWATH ships for the Western Pacific region. The Japanese Auxiliary Ocean Surveillance (JAOS) ships are being upgraded to the TL-29A array in FY17. A third Japanese SWATH ship is planned for delivery in 2021 with mission equipment funding programmed in FY19.

[P3A - 6 / VG007 - Field Changes/Modifications]: VG007

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                  |                                               | <b>Date:</b> February 2018                             |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 3: ASW Electronic Equipment                   |                                               | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                           | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0204311N        |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                               |                                               |                                                        |
| Field Changes/Modifications - Provide for correction of deficiencies identified by Fleet use, array support equipment, communications equipment, and replacement of aging/unsupportable equipment. |                                               |                                                        |
| VG776<br>Installation of Equipment - Installation Agents: SSC LANT, SSC PAC, Military Sealift Command, and Lockheed Martin.                                                                        |                                               |                                                        |



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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------|--|--|--------------------------------------------------------|--|----------------------------|--|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                             |  |  |                                               |  |  |                                                        |  | <b>Date:</b> February 2018 |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment |  |  |                                               |  |  | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |  |                            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                      |  |  | <b>Program Elements for Code B Items:</b> N/A |  |  | <b>Other Related Program Elements:</b> 0204311N        |  |                            |  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                          |  |  |                                               |  |  |                                                        |  |                            |  |

| Exhibits Schedule |                                               |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|-----------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                        | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-3a              | 1 / VG006 - Integrated Common Processor (N/A) |             |       |                | - / 37.394                               | - / 7.363                                | - / 13.052                               | - / 13.385                               | - / 0.000                                | - / 13.385                               |
| P-3a              | 5 / VG006 - SURTASS-E (TBD)                   |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 10.000                               | - / 0.000                                | - / 10.000                               |
| P-3a              | 2 / VG006 - TL-29A U.S. Twinline Arrays (N/A) |             |       |                | - / 44.687                               | - / 19.000                               | - / 1.785                                | - / 1.820                                | - / 0.000                                | - / 1.820                                |
| P-3a              | 3 / VG006 - J-AOS (N/A)                       |             |       |                | - / 0.000                                | - / 15.000                               | - / 0.000                                | - / 28.354                               | - / 0.000                                | - / 28.354                               |
| P-3a              | 4 / VG006 - SURTASS Team Trainer (N/A)        |             |       |                | - / 6.590                                | - / 1.277                                | - / 4.194                                | - / 1.750                                | - / 0.000                                | - / 1.750                                |
| P-3a              | 6 / VG007 - Field Changes/Modifications (N/A) |             |       |                | - / 12.218                               | - / 1.103                                | - / 11.149                               | - / 2.563                                | - / 0.000                                | - / 2.563                                |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>         |             |       |                | <b>- / 100.889</b>                       | <b>- / 43.743</b>                        | <b>- / 30.180</b>                        | <b>- / 57.872</b>                        | <b>- / 0.000</b>                         | <b>- / 57.872</b>                        |

| Exhibits Schedule |                                               |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|-----------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                        | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-3a              | 1 / VG006 - Integrated Common Processor (N/A) |             |       |                | - / 11.556                               | - / 11.572                               | - / 15.786                               | - / 17.270                               | - / 3.570                                | - / 130.948                              |
| P-3a              | 5 / VG006 - SURTASS-E (TBD)                   |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 10.000                               |
| P-3a              | 2 / VG006 - TL-29A U.S. Twinline Arrays (N/A) |             |       |                | - / 1.860                                | - / 1.018                                | - / 1.935                                | - / 1.974                                | - / 0.000                                | - / 74.079                               |
| P-3a              | 3 / VG006 - J-AOS (N/A)                       |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 43.354                               |
| P-3a              | 4 / VG006 - SURTASS Team Trainer (N/A)        |             |       |                | - / 4.500                                | - / 1.750                                | - / 4.700                                | - / 1.750                                | Continuing                               | Continuing                               |
| P-3a              | 6 / VG007 - Field Changes/Modifications (N/A) |             |       |                | - / 4.168                                | - / 3.848                                | - / 2.041                                | - / 3.924                                | - / 0.000                                | - / 41.014                               |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>         |             |       |                | <b>- / 22.084</b>                        | <b>- / 18.188</b>                        | <b>- / 24.462</b>                        | <b>- / 24.918</b>                        | <b>Continuing</b>                        | <b>Continuing</b>                        |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**  
FY 2019 requests funding (\$29.000 million) for Japanese Auxiliary Ocean Surveillance (J-AOS) Ships and funding (\$10.000 million) for Expeditionary Surveillance Towed Array Sensor System (E-SURTASS).  
Details are in individual exhibit P-3As.

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|---------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------|--|----------------------------|--|--------------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                        |  | <b>Date:</b> February 2018 |  |                                                                                |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |  |                            |  | <b>Modification Number / Title:</b><br>1 / VG006 - Integrated Common Processor |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 37.394      | 7.363   | 13.052  | 13.385       | 0.000       | 13.385          | 11.556  | 11.572  | 15.786  | 17.270  | 3.570       | 130.948 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 37.394      | 7.363   | 13.052  | 13.385       | 0.000       | 13.385          | 11.556  | 11.572  | 15.786  | 17.270  | 3.570       | 130.948 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                            | 37.394      | 7.363   | 13.052  | 13.385       | 0.000       | 13.385          | 11.556  | 11.572  | 15.786  | 17.270  | 3.570       | 130.948 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

FY17 and out-year funding continues cyclical ICP technical refresh of hardware.

ICP system configuration varies from ship to ship depending upon the type of arrays used (passive only, or passive and active). Additionally, Tech refresh efforts can be more significant in some years than others based on a range of factors, which include end of life components that require refresh; the need to incorporate significant cyber security and program protection improvements to reduce existing and projected threat vectors as well as the overall program protection posture and related requirements; inspections and testing into a particular ICP system undergoing refresh; or the need to update Configuration Control Models (CCMs) or Engineering Measurements Program (EMP) systems for each major hardware refresh. Accordingly, the procurement and installation costs will vary from one platform to another, depending on the configuration and the ship.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       | <b>Date:</b> February 2018                                                     |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                       |                                       |                                        |                                       | <b>Modification Number / Title:</b><br>1 / VG006 - Integrated Common Processor |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                       |                                                        |                                       |                                       | <b>MDAP/MAIS Code:</b>                 |                                       |                                                                                |                                       |                                       |  |
| <b>Models of Systems Affected:</b> Integrated Common Processor                  |                                       |                                       |                                       | <b>Modification Type:</b> N/A         |                                                        |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0204311N |                                       |                                                                                |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                     | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                         | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                 | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> VG006 - Integrated Common Processor            |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| 1.1.1) Integrated Common Processor - NonOrganic <sup>(1)</sup>                  | 23 / 29.360                           | 5 / 5.163                             | 7 / 10.652                            | 7 / 10.184                            | - / -                                                  | 7 / 10.184                            | 7 / 8.755                             | 6 / 9.422                              | 10 / 13.186                           | 10 / 13.770                                                                    | - / -                                 | 75 / 100.492                          |  |
| <i>Subtotal: Recurring</i>                                                      | - / 29.360                            | - / 5.163                             | - / 10.652                            | - / 10.184                            | - / -                                                  | - / 10.184                            | - / 8.755                             | - / 9.422                              | - / 13.186                            | - / 13.770                                                                     | - / 0.000                             | - / 100.492                           |  |
| <i>Subtotal: VG006 - Integrated Common Processor</i>                            | 23 / 29.360                           | 5 / 5.163                             | 7 / 10.652                            | 7 / 10.184                            | - / -                                                  | 7 / 10.184                            | 7 / 8.755                             | 6 / 9.422                              | 10 / 13.186                           | 10 / 13.770                                                                    | - / -                                 | 75 / 100.492                          |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 29.360                            | - / 5.163                             | - / 10.652                            | - / 10.184                            | - / -                                                  | - / 10.184                            | - / 8.755                             | - / 9.422                              | - / 13.186                            | - / 13.770                                                                     | - / 0.000                             | - / 100.492                           |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> VG006 - Integrated Common Processor            | - / 8.034                             | - / 2.200                             | - / 2.400                             | - / 3.201                             | - / 0.000                                              | - / 3.201                             | - / 2.801                             | - / 2.150                              | - / 2.600                             | - / 3.500                                                                      | - / 3.570                             | - / 30.456                            |  |
| <i>Subtotal: Installation</i>                                                   | - / 8.034                             | - / 2.200                             | - / 2.400                             | - / 3.201                             | - / -                                                  | - / 3.201                             | - / 2.801                             | - / 2.150                              | - / 2.600                             | - / 3.500                                                                      | - / 3.570                             | - / 30.456                            |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>37.394</b>                         | <b>7.363</b>                          | <b>13.052</b>                         | <b>13.385</b>                         | <b>0.000</b>                                           | <b>13.385</b>                         | <b>11.556</b>                         | <b>11.572</b>                          | <b>15.786</b>                         | <b>17.270</b>                                                                  | <b>3.570</b>                          | <b>130.948</b>                        |  |

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|----------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------|---------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                           |                                       |                                       |                                       |                                       |                                                        |                                             |                                       |                                       |                                       | <b>Date:</b> February 2018                                                     |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                      |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                             |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>1 / VG006 - Integrated Common Processor |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                              |                                       |                                       |                                       |                                       |                                                        |                                             |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                |                                       |                                       |
| <b>Modification Item 1 of 1:</b> VG006 - Integrated Common Processor                                                 |                                       |                                       |                                       |                                       |                                                        |                                             |                                       |                                       |                                       |                                                                                |                                       |                                       |
| <b>Manufacturer Information</b>                                                                                      |                                       |                                       |                                       |                                       |                                                        |                                             |                                       |                                       |                                       |                                                                                |                                       |                                       |
| Manufacturer Name: Lockheed Martin                                                                                   |                                       |                                       |                                       |                                       |                                                        | Manufacturer Location: VA                   |                                       |                                       |                                       |                                                                                |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 2                                                                       |                                       |                                       |                                       |                                       |                                                        | Production Leadtime <i>(in Months)</i> : 12 |                                       |                                       |                                       |                                                                                |                                       |                                       |
| <b>Dates</b>                                                                                                         | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                        | <b>FY 2021</b>                                         | <b>FY 2022</b>                              | <b>FY 2023</b>                        |                                       |                                       |                                                                                |                                       |                                       |
| Contract Dates                                                                                                       | Jan 2017                              | Jan 2018                              | Jan 2019                              | Jan 2020                              | Jan 2021                                               | Jan 2022                                    | Jan 2023                              |                                       |                                       |                                                                                |                                       |                                       |
| Delivery Dates                                                                                                       | Jan 2018                              | Jan 2019                              | Jan 2020                              | Jan 2021                              | Jan 2022                                               | Jan 2023                                    | Jan 2024                              |                                       |                                       |                                                                                |                                       |                                       |
| Manufacturer Name: Various                                                                                           |                                       |                                       |                                       |                                       |                                                        | Manufacturer Location: Various              |                                       |                                       |                                       |                                                                                |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 2                                                                       |                                       |                                       |                                       |                                       |                                                        | Production Leadtime <i>(in Months)</i> : 12 |                                       |                                       |                                       |                                                                                |                                       |                                       |
| <b>Dates</b>                                                                                                         | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                        | <b>FY 2021</b>                                         | <b>FY 2022</b>                              | <b>FY 2023</b>                        |                                       |                                       |                                                                                |                                       |                                       |
| Contract Dates                                                                                                       | Jan 2017                              | Jan 2018                              | Jan 2019                              | Jan 2020                              | Jan 2021                                               | Jan 2022                                    | Jan 2023                              |                                       |                                       |                                                                                |                                       |                                       |
| Delivery Dates                                                                                                       | Jan 2018                              | Jan 2019                              | Jan 2020                              | Jan 2021                              | Jan 2022                                               | Jan 2023                                    | Jan 2024                              |                                       |                                       |                                                                                |                                       |                                       |
| <b>Installation Information</b>                                                                                      |                                       |                                       |                                       |                                       |                                                        |                                             |                                       |                                       |                                       |                                                                                |                                       |                                       |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: Integrated Common Processor |                                       |                                       |                                       |                                       |                                                        |                                             |                                       |                                       |                                       |                                                                                |                                       |                                       |
| <b>Installation Cost</b>                                                                                             | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                     | <b>FY 2019 Total</b>                        | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                 | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                  | <i>Qty (Each) / Total Cost (\$ M)</i>       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| Prior Years                                                                                                          | 18 / 8.034                            | 5 / 2.200                             | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | 0 / 0.000                             | 23 / 10.234                           |
| FY 2017                                                                                                              | - / -                                 | - / -                                 | 5 / 2.400                             | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | 0 / 0.000                             | 5 / 2.400                             |
| FY 2018                                                                                                              | - / -                                 | - / -                                 | - / -                                 | 7 / 3.201                             | 0 / 0.000                                              | 7 / 3.201                                   | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | 0 / 0.000                             | 7 / 3.201                             |
| FY 2019                                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | 7 / 2.801                             | - / -                                 | - / -                                 | - / -                                                                          | 0 / 0.000                             | 7 / 2.801                             |
| FY 2020                                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | 7 / 2.150                             | - / -                                 | - / -                                                                          | 0 / 0.000                             | 7 / 2.150                             |
| FY 2021                                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | - / -                                 | 6 / 2.600                             | - / -                                                                          | 0 / 0.000                             | 6 / 2.600                             |
| FY 2022                                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | - / -                                 | - / -                                 | 10 / 3.500                                                                     | 0 / 0.000                             | 10 / 3.500                            |
| FY 2023                                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | 10 / 3.570                            | 10 / 3.570                            |
| To Complete                                                                                                          | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                  | - / -                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                                                          | - / -                                 | - / -                                 |
| Total                                                                                                                | 18 / 8.034                            | 5 / 2.200                             | 5 / 2.400                             | 7 / 3.201                             | 0 / 0.000                                              | 7 / 3.201                                   | 7 / 2.801                             | 7 / 2.150                             | 6 / 2.600                             | 10 / 3.500                                                                     | 10 / 3.570                            | 75 / 30.456                           |

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|----------------------------------------------------------------------------------------------------------------------|------------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|--------------------------------------------------------|-----------|-----------|-----------|----------------|------------------------|-----------|-----------|----------------------------|-----------|--------------------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                           |            |                |           |           |           |                |           |           |           |                                                        |           |           |           |                |                        |           |           | <b>Date:</b> February 2018 |           |                                                                                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                      |            |                |           |           |           |                |           |           |           | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |           |           |           |                |                        |           |           |                            |           | <b>Modification Number / Title:</b><br>1 / VG006 - Integrated Common Processor |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                              |            |                |           |           |           |                |           |           |           |                                                        |           |           |           |                | <b>MDAP/MAIS Code:</b> |           |           |                            |           |                                                                                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> VG006 - Integrated Common Processor                                                 |            |                |           |           |           |                |           |           |           |                                                        |           |           |           |                |                        |           |           |                            |           |                                                                                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                      |            |                |           |           |           |                |           |           |           |                                                        |           |           |           |                |                        |           |           |                            |           |                                                                                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: Integrated Common Processor |            |                |           |           |           |                |           |           |           |                                                        |           |           |           |                |                        |           |           |                            |           |                                                                                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                         |            |                |           |           |           |                |           |           |           |                                                        |           |           |           |                |                        |           |           |                            |           |                                                                                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                      | <b>PYS</b> | <b>FY 2017</b> |           |           |           | <b>FY 2018</b> |           |           |           | <b>FY 2019</b>                                         |           |           |           | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b>             |           |                                                                                |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                      |            | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                              | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                  | <b>Q2</b> | <b>Q3</b>                                                                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                   | 18         | -              | -         | 3         | 2         | -              | -         | 3         | 2         | -                                                      | 1         | 3         | 3         | -              | 2                      | 3         | 2         | -                          | 2         | 3                                                                              | 2         | -              | 1         | 3         | 2         | -              | 4         | 3         | 3         | 10        | 75         |
| Out                                                                                                                  | 16         | 2              | -         | -         | 3         | 2              | -         | -         | 3         | 2                                                      | 1         | -         | 3         | 3              | 2                      | -         | 3         | 2                          | 2         | -                                                                              | 3         | 2              | 1         | 3         | 2         | -              | 4         | 3         | 3         | 10        | 75         |

**Footnotes:**

<sup>(1)</sup> ICP system configuration varies from ship to ship depending upon the type of arrays used (passive only, or passive and active). Additionally, Tech refresh efforts can be more significant in some years than others based on a range of factors, which include end of life components that require refresh; the need to incorporate significant cyber security and program protection improvements to reduce existing and projected threat vectors as well as the overall program protection posture and related requirements; inspections and testing into a particular ICP system undergoing refresh; or the need to update Configuration Control Models (CCMs) or Engineering Measurements Program (EMP) systems for each major hardware refresh. Accordingly, the procurement and installation costs will vary from one platform to another, depending on the configuration and the ship. Installation cost variance: The 9.1% unit installation cost increase from FY17 to FY18 is due to 1) constraints and additional installation requirements based upon ship availability and 2) the additional installation requirements needed to support the active/passive arrays vice the passive systems.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                        | <b>Date:</b> February 2018                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS | <b>Modification Number / Title:</b><br>5 / VG006 - SURTASS-E |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 0.000       | 0.000   | 0.000   | 10.000       | 0.000       | 10.000          | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 10.000 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 0.000       | 0.000   | 0.000   | 10.000       | 0.000       | 10.000          | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 10.000 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 0.000       | 0.000   | 0.000   | 10.000       | 0.000       | 10.000          | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 10.000 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The Expeditionary Surveillance Towed Array Sensor System (SURTASS-E) is a Rapid Prototyping, Experimentation and Demonstration (RPED) project, tasked to re-package, test and demonstrate a SURTASS-like acoustic surveillance system which can be used as a surrogate for some of the capabilities provided by traditional T-AGOS class vessels. The \$10M in FY19 provides for procurement of a production TL-29A Twin Line Towed Array plus supporting towed array assemblies and components required to provide the expeditionary capability to the fleet for extended testing and development. Initial program investment funding includes \$1.0M FY17 RDTEN and \$20.0M FY18 RDTEN.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   | <b>Date:</b> February 2018                                   |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                   |                                   |                                   |                                        |                                   | <b>Modification Number / Title:</b><br>5 / VG006 - SURTASS-E |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                        |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>                 |                                   |                                                              |                                   |                                   |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                   |                                   |                                   | <b>Modification Type:</b> TBD                          |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0204311N |                                   |                                                              |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                    | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                    | <b>FY 2023</b>                                               | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                      | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                            | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   |                                                              |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> VG006 - SURTASS-E                              |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   |                                                              |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   |                                                              |                                   |                                   |  |
| Recurring                                                                       |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   |                                                              |                                   |                                   |  |
| 1.1.1) SURTASS-E Arrays - NonOrganic                                            | - / -                             | - / -                             | - / -                             | 1 / 10.000                                             | - / -                             | 1 / 10.000                        | - / -                             | - / -                                  | - / -                             | - / -                                                        | - / -                             | 1 / 10.000                        |  |
| <b>Subtotal: Recurring</b>                                                      | - / 0.000                         | - / -                             | - / -                             | - / 10.000                                             | - / -                             | - / 10.000                        | - / -                             | - / -                                  | - / -                             | - / -                                                        | - / 0.000                         | - / 10.000                        |  |
| <b>Subtotal: VG006 - SURTASS-E</b>                                              | - / -                             | - / -                             | - / -                             | 1 / 10.000                                             | - / -                             | 1 / 10.000                        | - / -                             | - / -                                  | - / -                             | - / -                                                        | - / -                             | 1 / 10.000                        |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 0.000                         | - / -                             | - / -                             | - / 10.000                                             | - / -                             | - / 10.000                        | - / -                             | - / -                                  | - / -                             | - / -                                                        | - / 0.000                         | - / 10.000                        |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   |                                                              |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> VG006 - SURTASS-E                              | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                                              | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                              | - / 0.000                         | - / 0.000                                                    | - / 0.000                         | - / 0.000                         |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.000                         | - / -                             | - / -                             | - / -                                                  | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                        | - / -                             | - / 0.000                         |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                        |                                   |                                   |                                   |                                        |                                   |                                                              |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>10.000</b>                                          | <b>0.000</b>                      | <b>10.000</b>                     | <b>0.000</b>                      | <b>0.000</b>                           | <b>0.000</b>                      | <b>0.000</b>                                                 | <b>0.000</b>                      | <b>10.000</b>                     |  |

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|-----------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                             |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                           |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |           |                                |           |                                |                                             |                                |           |                                |           | <b>Modification Number / Title:</b><br>5 / VG006 - SURTASS-E |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                      |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> VG006 - SURTASS-E                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: LOCKHEED MARTIN                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                | Manufacturer Location: SYRCACUSE, NY        |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 2                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 19 |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                              |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                         |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                              |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                            |            |                                |           |                                |           |                                |           |                                |           | Dec 2018                                               |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                            |            |                                |           |                                |           |                                |           |                                |           | Jul 2020                                               |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: SURTASS-E Arrays |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                  |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                     |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                             | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                               |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                           |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                         |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                             | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2017                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | 1 / 0.000                      |           | - / -                          |           | - / -                                                        |           | 0 / 0.000                      |           | 1 / -                          |           | 1 / -          |           |           |           |           |            |
| FY 2020                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                        |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                             | 1 / 0.000                      |           | - / -                          |           | - / -                                                        |           | 0 / 0.000                      |           | 1 / -                          |           | 1 / -          |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                             |                                |           |                                |           |                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                           | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                         |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                              |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                           |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                              | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                   | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                    | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                        | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                      | -         | -                              | -         | -                              | -                                           | -                              | -         | -                              | -         | -                                                            | 1         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 1          |
| Out                                                                                                       | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                      | -         | -                              | -         | -                              | -                                           | -                              | -         | -                              | -         | -                                                            | 1         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 1          |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                        |  | <b>Date:</b> February 2018 |  |                                                                                |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |  |                            |  | <b>Modification Number / Title:</b><br>2 / VG006 - TL-29A U.S. Twinline Arrays |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       | 44.687      | 19.000  | 1.785   | 1.820        | 0.000       | 1.820           | 1.860   | 1.018   | 1.935   | 1.974   | 0.000       | 74.079 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          | 44.687      | 19.000  | 1.785   | 1.820        | 0.000       | 1.820           | 1.860   | 1.018   | 1.935   | 1.974   | 0.000       | 74.079 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     | 44.687      | 19.000  | 1.785   | 1.820        | 0.000       | 1.820           | 1.860   | 1.018   | 1.935   | 1.974   | 0.000       | 74.079 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The TL-29A Twinline is a shallow water variant of the common array produced by NAVSEA. The array consists of 2 shorter array lengths and array support equipment, and is designed for increased surveillance capability in high clutter environments and littoral areas. Funding in FY18-FY23 is also provided to refurbish existing TL-29A array legs. Support equipment procurement is for ancillary test sets, array headline and roll control systems, tow cables, and array leader cables.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                |                                                        |                                |                                |                                |                                | <b>Date:</b> February 2018                                                     |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>2 / VG006 - TL-29A U.S. Twinline Arrays |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                |                                                        |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                |                                |                                |  |
| <b>Models of Systems Affected:</b> TL-29A Twinline Arrays                       |                                |                                |                                |                                | <b>Modification Type:</b> N/A                          |                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0204311N                                         |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                     | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |                                                                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> VG006 - TL-29A U.S. Twinline Arrays            |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |                                                                                |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |                                                                                |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |                                                                                |                                |                                |  |
| 1.1.1) U.S. Twinline Arrays - NonOrganic <sup>(2)</sup>                         | 8 / 43.787                     | 2 / 19.000                     | 1 / 1.785                      | 1 / 1.820                      | - / -                                                  | 1 / 1.820                      | 1 / 1.860                      | 1 / 1.018                      | 1 / 1.935                      | 1 / 1.974                                                                      | - / -                          | 16 / 73.179                    |  |
| <b>Subtotal: Recurring</b>                                                      | - / 43.787                     | - / 19.000                     | - / 1.785                      | - / 1.820                      | - / -                                                  | - / 1.820                      | - / 1.860                      | - / 1.018                      | - / 1.935                      | - / 1.974                                                                      | - / 0.000                      | - / 73.179                     |  |
| <b>Subtotal: VG006 - TL-29A U.S. Twinline Arrays</b>                            | 8 / 43.787                     | 2 / 19.000                     | 1 / 1.785                      | 1 / 1.820                      | - / -                                                  | 1 / 1.820                      | 1 / 1.860                      | 1 / 1.018                      | 1 / 1.935                      | 1 / 1.974                                                                      | - / -                          | 16 / 73.179                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 43.787                     | - / 19.000                     | - / 1.785                      | - / 1.820                      | - / -                                                  | - / 1.820                      | - / 1.860                      | - / 1.018                      | - / 1.935                      | - / 1.974                                                                      | - / 0.000                      | - / 73.179                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |                                                                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> VG006 - TL-29A U.S. Twinline Arrays            | - / 0.900                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                              | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                      | - / 0.000                      | - / 0.900                      |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.900                      | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | - / 0.000                      | - / 0.900                      |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |                                                                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | 44.687                         | 19.000                         | 1.785                          | 1.820                          | 0.000                                                  | 1.820                          | 1.860                          | 1.018                          | 1.935                          | 1.974                                                                          | 0.000                          | 74.079                         |  |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                             |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / VG006 - TL-29A U.S. Twinline Arrays |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> VG006 - TL-29A U.S. Twinline Arrays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: LOCKHEED MARTIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                | Manufacturer Location: SYRACUSE, NY |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                | Production Leadtime (in Months): 19 |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                         |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           | Dec 2018                                               |           |                                |           | Dec 2019                       |                                     |                                |           | Dec 2020                       |           |                                                                                |           | Dec 2021                       |           |                                |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Jul 2018                       |           |                                |           | Jul 2019                       |           |                                |           | Jul 2020                                               |           |                                |           | Jul 2021                       |                                     |                                |           | Jul 2022                       |           |                                                                                |           | Jul 2023                       |           |                                |           | Jul 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: U.S. Twinline Arrays                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                     |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                 |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                         |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                 |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | 8 / 0.900                      |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 8 / 0.900                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | 2 / 0.000                      |           | 0 / 0.000                                              |           | 2 / 0.000                      |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 2 / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 0.000                      |           | 0 / 0.000                                              |           | 1 / 0.000                      |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 1 / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | 1 / 0.000                      |                                     | - / -                          |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 1 / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                     | 1 / 0.000                      |           | - / -                          |           | - / -                                                                          |           | 0 / 0.000                      |           | 1 / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                     | - / -                          |           | 1 / 0.000                      |           | - / -                                                                          |           | 0 / 0.000                      |           | 1 / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | 1 / 0.000                                                                      |           | 0 / 0.000                      |           | 1 / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                          |           | 1 / 0.000                      |           | 1 / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                  |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | 8 / 0.900                      |           | - / -                          |           | - / -                          |           | 3 / 0.000                      |           | 0 / 0.000                                              |           | 3 / 0.000                      |           | 1 / 0.000                      |                                     | 1 / 0.000                      |           | 1 / 0.000                      |           | 1 / 0.000                                                                      |           | 1 / 0.000                      |           | 16 / 0.900                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                         |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                              | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                      | -         | -                              | 3         | -                              | -                                   | -                              | 1         | -                              | -         | -                                                                              | 1         | -                              | -         | -                              | 1         | -              | -         | -         | 1         | 1         | 16         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                      | -         | -                              | 3         | -                              | -                                   | -                              | 1         | -                              | -         | -                                                                              | 1         | -                              | -         | -                              | 1         | -              | -         | -         | 1         | 1         | 16         |
| <b>Footnotes:</b><br><sup>(2)</sup> The TL-29A Twinline is a shallow water variant of the common array produced by NAVSEA. The array consists of two shorter array lengths and array support equipment, and is designed for increased surveillance capability in high clutter environments and littoral areas. Support equipment procurement is for ancillary test sets, array headline and roll control systems, tow cable, and leader cables. Installation funding is not required for the support equipment. FY17 funded two U.S. rotational pool arrays. FY18-FY23 funds refurbishment of one (1) array leg per year, which is less costly than procurement of new arrays. Installation Remarks: Installation only occurs on six T-AGOS platforms, and as of FY17, a TASW SURTASS platform. Historically, an array is lost or severely damaged every 18 months. Last array was lost |            |                                |           |                                |           |                                |           |                                |           |                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                         |                                                        | <b>Date:</b> February 2018                                                     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                                                                                                                                                                                    | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS | <b>Modification Number / Title:</b><br>2 / VG006 - TL-29A U.S. Twinline Arrays |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                            |                                                        | <b>MDAP/MAIS Code:</b>                                                         |
| <p>Sept 2006; last array severely damaged was Jul 2014. Without a ready asset in theater, if an array is lost or damaged, a SURTASS ship cannot deploy and execute its mission. Future assets to be delivered are initially provided as ready assets, and installed as needed.</p> |                                                        |                                                                                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                        | <b>Date:</b> February 2018                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS | <b>Modification Number / Title:</b><br>3 / VG006 - J-AOS |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 15.000  | 0.000   | 28.354       | 0.000       | 28.354          | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 43.354 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 15.000  | 0.000   | 28.354       | 0.000       | 28.354          | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 43.354 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 15.000  | 0.000   | 28.354       | 0.000       | 28.354          | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 43.354 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

New P-3A to break out the J-AOS TL-29A array requirements from the U.S. requirements.

The J-AOS TL-29A procurement costs are associated with upgrading to a new array type and array support infrastructure, including two complete towed arrays and associated tow hardware and dry end equipment. A third rotational pool array, modules, dry side equipment and support equipment procurement was moved from FY21 to FY19. A third J-AOS ship is being constructed with commissioning scheduled for FY21. The ship requires outfitting with a mission system with procurement of a TL-29A array system and associated tow hardware, dry end equipment and installation. The program is funded with both FMS and OPN, and the \$15M in FY17 and the \$9.4M in FY19 represent the U.S. share of the total cost of the J-AOS TL-29A upgrade program. The U.S. cost share for the outfitting of the new J-AOS platform (J-3) is \$19.6M. All installation costs are paid via FMS funds.

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|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                | <b>Date:</b> February 2018                               |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                |                                |                                |                                         |                                | <b>Modification Number / Title:</b><br>3 / VG006 - J-AOS |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                        |                                |                                |                                | <b>MDAP/MAIS Code:</b>                  |                                |                                                          |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                |                                |                                | <b>Modification Type:</b> N/A                          |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 02040311N |                                |                                                          |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                    | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                          | <b>FY 2022</b>                 | <b>FY 2023</b>                                           | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                |                                                          |                                |                                |  |
| <b>Modification Item 1 of 1:</b> VG006 - J-AOS                                  |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                |                                                          |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                |                                                          |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                |                                                          |                                |                                |  |
| 1.1.1) J-AOS - NonOrganic                                                       | - / -                          | 1 / 15.000                     | - / -                          | 2 / 28.354                                             | - / -                          | 2 / 28.354                     | - / -                          | - / -                                   | - / -                          | - / -                                                    | - / -                          | 3 / 43.354                     |  |
| <b>Subtotal: Recurring</b>                                                      | - / 0.000                      | - / 15.000                     | - / -                          | - / 28.354                                             | - / -                          | - / 28.354                     | - / -                          | - / -                                   | - / -                          | - / -                                                    | - / 0.000                      | - / 43.354                     |  |
| <b>Subtotal: VG006 - J-AOS</b>                                                  | - / -                          | 1 / 15.000                     | - / -                          | 2 / 28.354                                             | - / -                          | 2 / 28.354                     | - / -                          | - / -                                   | - / -                          | - / -                                                    | - / -                          | 3 / 43.354                     |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 0.000                      | - / 15.000                     | - / -                          | - / 28.354                                             | - / -                          | - / 28.354                     | - / -                          | - / -                                   | - / -                          | - / -                                                    | - / 0.000                      | - / 43.354                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                |                                                          |                                |                                |  |
| <b>Modification Item 1 of 1:</b> VG006 - J-AOS                                  | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                              | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                               | - / 0.000                      | - / 0.000                                                | - / 0.000                      | - / 0.000                      |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.000                      | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                                   | - / -                          | - / -                                                    | - / -                          | - / 0.000                      |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                        |                                |                                |                                |                                         |                                |                                                          |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                   | <b>15.000</b>                  | <b>0.000</b>                   | <b>28.354</b>                                          | <b>0.000</b>                   | <b>28.354</b>                  | <b>0.000</b>                   | <b>0.000</b>                            | <b>0.000</b>                   | <b>0.000</b>                                             | <b>0.000</b>                   | <b>43.354</b>                  |  |

## UNCLASSIFIED

|                                                                                                |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|----------------------------------------------------------|-----------|----------------|----------------|-----------|----------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                     |            |                                |                                |                                |                                                        |                                |                                |                                |                                | <b>Date:</b> February 2018          |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                |            |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                |                                |                                |                                |                                     |                                |                                |                                |                | <b>Modification Number / Title:</b><br>3 / VG006 - J-AOS |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                        |            |                                |                                |                                |                                                        |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>              |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> VG006 - J-AOS                                                 |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: LOCKHEED MARTIN                                                             |            |                                |                                |                                |                                                        |                                |                                |                                |                                | Manufacturer Location: SYRACUSE, NY |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                         |            |                                |                                |                                |                                                        |                                |                                |                                |                                | Production Leadtime (in Months): 19 |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                   |            | <b>FY 2017</b>                 |                                |                                | <b>FY 2018</b>                                         |                                |                                | <b>FY 2019</b>                 |                                |                                     | <b>FY 2020</b>                 |                                |                                | <b>FY 2021</b> |                                                          |           | <b>FY 2022</b> |                |           | <b>FY 2023</b> |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                 |            | Dec 2016                       |                                |                                |                                                        |                                |                                | Dec 2018                       |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                 |            | Jul 2018                       |                                |                                |                                                        |                                |                                | Jul 2020                       |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: J-AOS |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                       |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                    | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                      | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                    |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                        |            | - / -                          | - / -                          | - / -                          | 1 / 0.000                                              | 0 / 0.000                      | 1 / 0.000                      | - / -                          | - / -                          | - / -                               | - / -                          | 0 / 0.000                      | 1 / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | 2 / 0.000                      | - / -                               | - / -                          | 0 / 0.000                      | 2 / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                    |            | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                               | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                          |            | - / -                          | - / -                          | - / -                          | 1 / 0.000                                              | 0 / 0.000                      | 1 / 0.000                      | - / -                          | 2 / 0.000                      | - / -                               | - / -                          | 0 / 0.000                      | 3 / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                   |            |                                |                                |                                |                                                        |                                |                                |                                |                                |                                     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                                        | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                      |                                |                                |                                | <b>FY 2020</b> |                                                          |           |                | <b>FY 2021</b> |           |                |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                              | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                           | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                             | -          | -                              | -                              | -                              | -                                                      | -                              | -                              | -                              | -                              | -                                   | -                              | -                              | 1                              | -              | -                                                        | -         | -              | -              | -         | -              | 2         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 3          |
| Out                                                                                            | -          | -                              | -                              | -                              | -                                                      | -                              | -                              | -                              | -                              | -                                   | -                              | -                              | -                              | 1              | -                                                        | -         | -              | -              | -         | -              | 2         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 3          |

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|---------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------|--|----------------------------|--|-------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                        |  | <b>Date:</b> February 2018 |  |                                                                         |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |  |                            |  | <b>Modification Number / Title:</b><br>4 / VG006 - SURTASS Team Trainer |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 6.590       | 1.277   | 4.194   | 1.750        | 0.000       | 1.750           | 4.500   | 1.750   | 4.700   | 1.750   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 6.590       | 1.277   | 4.194   | 1.750        | 0.000       | 1.750           | 4.500   | 1.750   | 4.700   | 1.750   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 6.590       | 1.277   | 4.194   | 1.750        | 0.000       | 1.750           | 4.500   | 1.750   | 4.700   | 1.750   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

The SURTASS Team Trainer (STT) provides SURTASS crews with three high fidelity synthetic and live playback training capabilities to support Home Port Training Periods (HPTP) and Pre-Deployment Certification Periods (PDCP). Each STT will receive a hardware tech refresh on a six-year cycle and receive a major software update installation on a two-year cycle, so that 3 STTs hardware tech refreshes and 9 major software installations would be performed over a given six-year period. Tech refresh and software updates for the STTs will continue on this cycle. The 4-7% procurement cost growth between FY18, FY20, and FY22 accounts for the additional STT capabilities incorporated to provide operators with the means to address more sophisticated threat targets and environments. Similarly, installation costs increase slightly from FY17 to FY19 as a result of additional integration and testing considerations related to increasingly more sophisticated and capable STT suites.



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|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|-------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       | <b>Date:</b> February 2018                                              |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                       |                                       |                                       |                                        |                                       | <b>Modification Number / Title:</b><br>4 / VG006 - SURTASS Team Trainer |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                        |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                 |                                       |                                                                         |                                       |                                       |  |
| <b>Models of Systems Affected:</b> SURTASS Team Trainer                         |                                       |                                       |                                       | <b>Modification Type:</b> N/A                          |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0204311N |                                       |                                                                         |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                    | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                         | <b>FY 2022</b>                        | <b>FY 2023</b>                                                          | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       |                                                                         |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> VG006 - SURTASS Team Trainer                   |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       |                                                                         |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       |                                                                         |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       |                                                                         |                                       |                                       |  |
| 1.1.1) SURTASS Team Trainer - NonOrganic                                        | 2 / 6.341                             | - / -                                 | 1 / 4.194                             | - / -                                                  | - / -                                 | - / -                                 | 1 / 4.500                             | - / -                                  | 1 / 4.700                             | - / -                                                                   | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                      | - / 6.341                             | - / -                                 | - / 4.194                             | - / -                                                  | - / -                                 | - / -                                 | - / 4.500                             | - / -                                  | - / 4.700                             | - / -                                                                   | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: VG006 - SURTASS Team Trainer</i>                                   | 2 / 6.341                             | - / -                                 | 1 / 4.194                             | - / -                                                  | - / -                                 | - / -                                 | 1 / 4.500                             | - / -                                  | 1 / 4.700                             | - / -                                                                   | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 6.341                             | - / -                                 | - / 4.194                             | - / -                                                  | - / -                                 | - / -                                 | - / 4.500                             | - / -                                  | - / 4.700                             | - / -                                                                   | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       |                                                                         |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> VG006 - SURTASS Team Trainer                   | - / 0.249                             | - / 1.277                             | - / 0.000                             | - / 1.750                                              | - / 0.000                             | - / 1.750                             | - / 0.000                             | - / 1.750                              | - / 0.000                             | - / 1.750                                                               | - / 0.000                             | - / 6.776                             |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.249                             | - / 1.277                             | - / -                                 | - / 1.750                                              | - / -                                 | - / 1.750                             | - / -                                 | - / 1.750                              | - / -                                 | - / 1.750                                                               | - / 0.000                             | - / 6.776                             |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                        |                                       |                                       |                                       |                                        |                                       |                                                                         |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>6.590</b>                          | <b>1.277</b>                          | <b>4.194</b>                          | <b>1.750</b>                                           | <b>0.000</b>                          | <b>1.750</b>                          | <b>4.500</b>                          | <b>1.750</b>                           | <b>4.700</b>                          | <b>1.750</b>                                                            | <b>Continuing</b>                     | <b>Continuing</b>                     |  |

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|---------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|-------------------------------------|-----------|-----------|----------------|-----------|-------------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                    |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                             |                                |                                |                                |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                               |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                |                                |                                |                |                                     |           |           |                |           | <b>Modification Number / Title:</b><br>4 / VG006 - SURTASS Team Trainer |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                       |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                | <b>MDAP/MAIS Code:</b>              |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> VG006 - SURTASS Team Trainer                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                               |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: NSWC CD                                                                                    |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                | Manufacturer Location: BETHESDA, MD |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                        |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                | Production Leadtime (in Months): 14 |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                  |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                         |                                |                                |                                | <b>FY 2020</b> |                                     |           |           | <b>FY 2021</b> |           |                                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                |            |                                |                                |                                |                                | Jan 2018                       |                                |                                |                                |                                                        |                                |                                |                                | Jan 2020       |                                     |           |           |                |           |                                                                         |           | Jan 2022       |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                |            |                                |                                |                                |                                | Feb 2019                       |                                |                                |                                |                                                        |                                |                                |                                | Feb 2021       |                                     |           |           |                |           |                                                                         |           | Feb 2023       |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                                            |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                | Manufacturer Location: VA           |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                        |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                | Production Leadtime (in Months): 14 |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                  |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                         |                                |                                |                                | <b>FY 2020</b> |                                     |           |           | <b>FY 2021</b> |           |                                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                |            |                                |                                |                                |                                | Jan 2018                       |                                |                                |                                |                                                        |                                |                                |                                | Jan 2020       |                                     |           |           |                |           |                                                                         |           | Jan 2022       |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                |            |                                |                                |                                |                                | Feb 2019                       |                                |                                |                                |                                                        |                                |                                |                                | Feb 2021       |                                     |           |           |                |           |                                                                         |           | Feb 2023       |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                               |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: SURTASS Team Trainer |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                      |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                         | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                               |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                   |            | 1 / 0.249                      | 1 / 1.277                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | 0 / 0.000                      | 2 / 1.526                      |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                       |            | - / -                          | - / -                          | - / -                          | 1 / 1.750                      | 0 / 0.000                      | 1 / 1.750                      | - / -                          | - / -                          | - / -                                                  | - / -                          | 0 / 0.000                      | 1 / 1.750                      |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.750                      | - / -                                                  | - / -                          | 0 / 0.000                      | 1 / 1.750                      |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | 1 / 1.750                      | 0 / 0.000                      | 1 / 1.750                      |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                   |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                          |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                         |            | 1 / 0.249                      | 1 / 1.277                      | - / -                          | 1 / 1.750                      | 0 / 0.000                      | 1 / 1.750                      | - / -                          | 1 / 1.750                      | - / -                                                  | 1 / 1.750                      | 0 / 0.000                      | 5 / 6.776                      |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                  |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                        |                                |                                |                                |                |                                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                         |                                |                                |                                | <b>FY 2020</b> |                                     |           |           | <b>FY 2021</b> |           |                                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                               |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                              | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                           | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                               | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                            | 1          | -                              | 1                              | -                              | -                              | -                              | -                              | -                              | -                              | -                                                      | 1                              | -                              | -                              | -              | -                                   | -         | -         | -              | 1         | -                                                                       | -         | -              | -         | -         | -         | -              | 1         | -         | -         | -         | 5          |
| Out                                                                                                           | 1          | -                              | -                              | -                              | 1                              | -                              | -                              | -                              | -                              | -                                                      | -                              | -                              | 1                              | -              | -                                   | -         | -         | -              | -         | -                                                                       | 1         | -              | -         | -         | -         | -              | -         | -         | 1         | -         | 5          |

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|---------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------|--|----------------------------|--|--------------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                        |  | <b>Date:</b> February 2018 |  |                                                                                |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |  |                            |  | <b>Modification Number / Title:</b><br>6 / VG007 - Field Changes/Modifications |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 12.218      | 1.103   | 11.149  | 2.563        | 0.000       | 2.563           | 4.168   | 3.848   | 2.041   | 3.924   | 0.000       | 41.014 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 12.218      | 1.103   | 11.149  | 2.563        | 0.000       | 2.563           | 4.168   | 3.848   | 2.041   | 3.924   | 0.000       | 41.014 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 12.218      | 1.103   | 11.149  | 2.563        | 0.000       | 2.563           | 4.168   | 3.848   | 2.041   | 3.924   | 0.000       | 41.014 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Field Changes/Modifications for correction of deficiencies identified by Fleet use, array support, communications equipment and replacement of aging/unsupportable equipment. Additional FY19-FY23 funding will facilitate transition to an upgraded command and control system, including installation of the Consolidated Afloat Network Enterprise System (CANES). Other aging End-of-life systems, including Global Command and Control System-Maritime (GCCS-M), UHF Line-of-sight Satellite (LOS/SAT), and ship's gyros will need to be replaced in order to ensure continuity of operations should the primary acoustic path to shore become inoperable.

Cost growth is reflective of funding for C4I Modernization added in POM-18. Costs for individual C4I systems being procured are varied, resulting in the variability in individual unit costs across the fiscal years, with the primary procurements occurring in FY18.

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|---------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|--------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                     |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3 |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>6 / VG007 - Field Changes/Modifications |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                           |                                           |                                           |                                                        |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                |                                           |                                           |  |
| <b>Models of Systems Affected:</b> Field Changes/<br>Modifications              |                                           |                                           |                                           | <b>Modification Type:</b> N/A                          |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b> 0204311N    |                                           |                                                                                |                                           |                                           |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                 | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                 | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>              | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                      | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           |                                                                                |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> VG007 - Field Changes/<br>Modifications        |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           |                                                                                |                                           |                                           |  |
| B Kits                                                                          |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           |                                                                                |                                           |                                           |  |
| Recurring                                                                       |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           |                                                                                |                                           |                                           |  |
| 1.1.1) Field Changes/Modifications - NonOrganic                                 | 68 / 8.341                                | 5 / 0.637                                 | 5 / 10.828                                | 5 / 2.157                                              | - / -                                     | 5 / 2.157                                 | 5 / 3.791                                 | 5 / 3.501                                 | 5 / 1.541                                 | 5 / 3.424                                                                      | - / -                                     | 103 / 34.220                              |  |
| <i>Subtotal: Recurring</i>                                                      | - / 8.341                                 | - / 0.637                                 | - / 10.828                                | - / 2.157                                              | - / -                                     | - / 2.157                                 | - / 3.791                                 | - / 3.501                                 | - / 1.541                                 | - / 3.424                                                                      | - / 0.000                                 | - / 34.220                                |  |
| <i>Subtotal: VG007 - Field Changes/Modifications</i>                            | 68 / 8.341                                | 5 / 0.637                                 | 5 / 10.828                                | 5 / 2.157                                              | - / -                                     | 5 / 2.157                                 | 5 / 3.791                                 | 5 / 3.501                                 | 5 / 1.541                                 | 5 / 3.424                                                                      | - / -                                     | 103 / 34.220                              |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 8.341                                 | - / 0.637                                 | - / 10.828                                | - / 2.157                                              | - / -                                     | - / 2.157                                 | - / 3.791                                 | - / 3.501                                 | - / 1.541                                 | - / 3.424                                                                      | - / 0.000                                 | - / 34.220                                |  |
| <b>Installation</b>                                                             |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           |                                                                                |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> VG007 - Field Changes/<br>Modifications        | - / 3.877                                 | - / 0.466                                 | - / 0.321                                 | - / 0.406                                              | - / 0.000                                 | - / 0.406                                 | - / 0.377                                 | - / 0.347                                 | - / 0.500                                 | - / 0.500                                                                      | - / 0.000                                 | - / 6.794                                 |  |
| <i>Subtotal: Installation</i>                                                   | - / 3.877                                 | - / 0.466                                 | - / 0.321                                 | - / 0.406                                              | - / -                                     | - / 0.406                                 | - / 0.377                                 | - / 0.347                                 | - / 0.500                                 | - / 0.500                                                                      | - / 0.000                                 | - / 6.794                                 |  |
| <b>Total</b>                                                                    |                                           |                                           |                                           |                                                        |                                           |                                           |                                           |                                           |                                           |                                                                                |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>12.218</b>                             | <b>1.103</b>                              | <b>11.149</b>                             | <b>2.563</b>                                           | <b>0.000</b>                              | <b>2.563</b>                              | <b>4.168</b>                              | <b>3.848</b>                              | <b>2.041</b>                              | <b>3.924</b>                                                                   | <b>0.000</b>                              | <b>41.014</b>                             |  |

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|----------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                           |                                |                                |                                |                                                        |                                |                                | <b>Date:</b> February 2018            |                                                                                |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 3                                      |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2237 / SURTASS |                                |                                |                                       | <b>Modification Number / Title:</b><br>6 / VG007 - Field Changes/Modifications |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                              |                                |                                |                                |                                                        |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                                |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> VG007 - Field Changes/Modifications                                                 |                                |                                |                                |                                                        |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                                      |                                |                                |                                |                                                        |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| Manufacturer Name: SSC PAC                                                                                           |                                |                                |                                |                                                        |                                |                                | Manufacturer Location: San Diego, CA  |                                                                                |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                                                               |                                |                                |                                |                                                        |                                |                                | Production Leadtime (in Months): 10   |                                                                                |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                         | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |
| Contract Dates                                                                                                       | Nov 2016                       | Nov 2017                       | Nov 2018                       | Nov 2019                                               | Nov 2020                       | Nov 2021                       | Nov 2022                              |                                                                                |                                |                                |                                |                                |
| Delivery Dates                                                                                                       | Sep 2017                       | Sep 2018                       | Sep 2019                       | Sep 2020                                               | Sep 2021                       | Sep 2022                       | Sep 2023                              |                                                                                |                                |                                |                                |                                |
| Manufacturer Name: SSC LANT                                                                                          |                                |                                |                                |                                                        |                                |                                | Manufacturer Location: Charleston, SC |                                                                                |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                                                               |                                |                                |                                |                                                        |                                |                                | Production Leadtime (in Months): 10   |                                                                                |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                         | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |
| Contract Dates                                                                                                       | Nov 2016                       | Nov 2017                       | Nov 2018                       | Nov 2019                                               | Nov 2020                       | Nov 2021                       | Nov 2022                              |                                                                                |                                |                                |                                |                                |
| Delivery Dates                                                                                                       | Sep 2017                       | Sep 2018                       | Sep 2019                       | Sep 2020                                               | Sep 2021                       | Sep 2022                       | Sep 2023                              |                                                                                |                                |                                |                                |                                |
| Manufacturer Name: Lockheed Martin                                                                                   |                                |                                |                                |                                                        |                                |                                | Manufacturer Location: VA             |                                                                                |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                                                               |                                |                                |                                |                                                        |                                |                                | Production Leadtime (in Months): 10   |                                                                                |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                         | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |
| Contract Dates                                                                                                       | Nov 2016                       | Nov 2017                       | Nov 2018                       | Nov 2019                                               | Nov 2020                       | Nov 2021                       | Nov 2022                              |                                                                                |                                |                                |                                |                                |
| Delivery Dates                                                                                                       | Sep 2017                       | Sep 2018                       | Sep 2019                       | Sep 2020                                               | Sep 2021                       | Sep 2022                       | Sep 2023                              |                                                                                |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                                      |                                |                                |                                |                                                        |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: Field Changes/Modifications |                                |                                |                                |                                                        |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                             | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                    | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                 | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                          | 68 / 3.877                     | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 68 / 3.877                     |
| FY 2017                                                                                                              | - / -                          | 5 / 0.466                      | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.466                      |
| FY 2018                                                                                                              | - / -                          | - / -                          | 5 / 0.321                      | - / -                                                  | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.321                      |
| FY 2019                                                                                                              | - / -                          | - / -                          | - / -                          | 5 / 0.406                                              | 0 / 0.000                      | 5 / 0.406                      | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.406                      |
| FY 2020                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | 5 / 0.377                             | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.377                      |
| FY 2021                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                                 | 5 / 0.347                                                                      | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.347                      |
| FY 2022                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                                 | - / -                                                                          | 5 / 0.500                      | - / -                          | 0 / 0.000                      | 5 / 0.500                      |
| FY 2023                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | 5 / 0.500                      | 0 / 0.000                      | 5 / 0.500                      |
| To Complete                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                  | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | - / -                          | - / -                          |
| <b>Total</b>                                                                                                         | <b>68 / 3.877</b>              | <b>5 / 0.466</b>               | <b>5 / 0.321</b>               | <b>5 / 0.406</b>                                       | <b>0 / 0.000</b>               | <b>5 / 0.406</b>               | <b>5 / 0.377</b>                      | <b>5 / 0.347</b>                                                               | <b>5 / 0.500</b>               | <b>5 / 0.500</b>               | <b>0 / 0.000</b>               | <b>103 / 6.794</b>             |

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|---------------------------------------------------------------------------------------------------------------|-----|---------|---|---|---|---------|---|---|---|-------------------------------------------------|---|---|---|---------|-----------------|---|---|---------|---|-------------------------------------------------------------------------|---|---------|---|---|---|---------|---|---|---|----|-----|-----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                           |     |         |   |   |   |         |   |   |   |                                                 |   |   |   |         |                 |   |   |         |   | Date: February 2018                                                     |   |         |   |   |   |         |   |   |   |    |     |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 3                                      |     |         |   |   |   |         |   |   |   | P-1 Line Item Number / Title:<br>2237 / SURTASS |   |   |   |         |                 |   |   |         |   | Modification Number / Title:<br>6 / VG007 - Field Changes/Modifications |   |         |   |   |   |         |   |   |   |    |     |     |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                              |     |         |   |   |   |         |   |   |   |                                                 |   |   |   |         | MDAP/MAIS Code: |   |   |         |   |                                                                         |   |         |   |   |   |         |   |   |   |    |     |     |
| Modification Item 1 of 1: VG007 - Field Changes/Modifications                                                 |     |         |   |   |   |         |   |   |   |                                                 |   |   |   |         |                 |   |   |         |   |                                                                         |   |         |   |   |   |         |   |   |   |    |     |     |
| Installation Information                                                                                      |     |         |   |   |   |         |   |   |   |                                                 |   |   |   |         |                 |   |   |         |   |                                                                         |   |         |   |   |   |         |   |   |   |    |     |     |
| Method of Implementation: AIT (Alteration Installation Team):: Installation Name: Field Changes/Modifications |     |         |   |   |   |         |   |   |   |                                                 |   |   |   |         |                 |   |   |         |   |                                                                         |   |         |   |   |   |         |   |   |   |    |     |     |
| Installation Schedule                                                                                         |     |         |   |   |   |         |   |   |   |                                                 |   |   |   |         |                 |   |   |         |   |                                                                         |   |         |   |   |   |         |   |   |   |    |     |     |
|                                                                                                               | PYS | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019                                         |   |   |   | FY 2020 |                 |   |   | FY 2021 |   |                                                                         |   | FY 2022 |   |   |   | FY 2023 |   |   |   | TC | Tot |     |
| In                                                                                                            | 68  | -       | - | - | 5 | -       | - | - | 5 | -                                               | - | - | 5 | -       | -               | - | 5 | -       | - | -                                                                       | 5 | -       | - | - | 5 | -       | - | - | 5 | -  | -   | 103 |
| Out                                                                                                           | 68  | -       | - | - | 5 | -       | - | - | 5 | -                                               | - | - | 5 | -       | -               | - | 5 | -       | - | -                                                                       | 5 | -       | - | - | 5 | -       | - | - | 5 | -  | -   | 103 |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------|--------------------|----------------------|----------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                 |                    |                |                |                                                    |                    |                      |                                                          |                                            |                | <b>Date:</b> February 2018 |                    |                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 4: Electronic Warfare Equipment |                    |                |                |                                                    |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                            |                |                            |                    |                  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                          |                    |                |                | <b>Program Elements for Code B Items:</b> 0204228N |                    |                      |                                                          | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                              |                    |                |                |                                                    |                    |                      |                                                          |                                            |                |                            |                    |                  |
| <b>Resource Summary</b>                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                           | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>     |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                     | -                  | -              | -              | -                                                  | -                  | -                    | -                                                        | -                                          | -              | -                          | -                  | -                |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                | 783.154            | 244.001        | 240.433        | 420.344                                            | 0.000              | 420.344              | 554.399                                                  | 693.782                                    | 498.954        | 478.252                    | 1,262.099          | 5,175.418        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                             | -                  | -              | -              | -                                                  | -                  | -                    | -                                                        | -                                          | -              | -                          | -                  | -                |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                   | 783.154            | 244.001        | 240.433        | 420.344                                            | 0.000              | 420.344              | 554.399                                                  | 693.782                                    | 498.954        | 478.252                    | 1,262.099          | 5,175.418        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                             | -                  | -              | -              | -                                                  | -                  | -                    | -                                                        | -                                          | -              | -                          | -                  | -                |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                       | <b>783.154</b>     | <b>244.001</b> | <b>240.433</b> | <b>420.344</b>                                     | <b>0.000</b>       | <b>420.344</b>       | <b>554.399</b>                                           | <b>693.782</b>                             | <b>498.954</b> | <b>478.252</b>             | <b>1,262.099</b>   | <b>5,175.418</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                     |                    |                |                |                                                    |                    |                      |                                                          |                                            |                |                            |                    |                  |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                          | -                  | 1.002          | 11.976         | 9.903                                              | -                  | 9.903                | 8.670                                                    | 7.532                                      | 13.220         | 8.582                      | Continuing         | Continuing       |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                        | -                  | -              | -              | -                                                  | -                  | -                    | -                                                        | -                                          | -              | -                          | -                  | -                |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                            | -                  | -              | -              | -                                                  | -                  | -                    | -                                                        | -                                          | -              | -                          | -                  | -                |

**Description:**  
 The FY 2019 funding request was reduced by \$19.630 million to account for the availability of prior year execution balances.

The AN/SLQ-32(V) provides a family of modular ship born electronic warfare equipment which is installed on all surface combatants, aircraft carriers, amphibious ships and auxiliaries in the surface Navy. The system provides early detection, analysis, threat warning and protection from anti-ship missiles. The OPN 2312 budget supports the AN/SLQ-32(V)6 and AN/SLQ-32(V)7 variants through procurement and installation. The SEWIP Block 1B3 and Block 2 units are installed conjunctively and comprise the AN/SLQ-32(V)6 system. The SEWIP Block 1B3, Block 2 and Block 3 units are installed conjunctively and comprise the AN/SLQ-32(V)7 system.

TC056: SURFACE ELECTRONIC WARFARE (EW) IMPROVEMENTS BLOCK 1  
 The Surface Electronic Warfare (EW) Improvement Program (SEWIP) will develop a modern, highly capable family of EW systems by block upgrade of the current AN/SLQ-32 system that is robust in detecting and countering current and future threats and will extend the service life of AN/SLQ3-2(V) systems. Funding procures upgrades to the current AN/SLQ-32 system.

BLOCK 1B1 - SMALL SHIP ELECTRONIC MEASURES SYSTEM (SSESM):  
 Small Ship Electronic Support Measures System (SSESM) provides Specific Emitter Identification (SEI) capability to various ships/ship classes in a stand-alone configuration. Tech Refresh funding is provided to address obsolescence and reliability issues presenting affecting fielded systems.

BLOCK 1B2 - FEDERATED SPECIFIC EMITTER IDENTIFICATION (SEI):  
 The federated SEI, consisting of SEI hardware plus an ICAD modification kit, fully integrates SEI functionality with the ICAD/Q-70 console. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

BLOCK 1B3 - HIGH GAIN HIGH SENSITIVITY (HGHS):  
 High Gain High Sensitivity (HGHS) Adjunct Sensor is a critical improvement for threat correlation, situational awareness, and extending the battle space. Engineering Change Proposal (ECP) funding is provided to support changes resulting from software and hardware trouble reports from production, shipboard installations and/or land based testing. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems. The SEWIP Block 1B3 and Block 2 units are installed conjunctively to compose the AN/SLQ-32(V)6 system. The SEWIP Block 1B3, Block 2 and Block 3 units are installed conjunctively to compose the AN/SLQ-32(V)7 system. The SEWIP Block 1B3 P-3a funding has been broken out to separately show systems installed with SEWIP Block 2 (FMP Block 1B3 for SLQ-32

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             | Date: February 2018                               |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 4: Electronic Warfare Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Program Elements for Code B Items: 0204228N | Other Related Program Elements: N/A               |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                                   |
| (V)6 ) and systems installed with SEWIP Block 2 and Block 3 (FMP Block 1B3 for SLQ-32 (V)7). For FMP Block 1B3 systems for SLQ-32 (V)7, production lead times for Block 1B3 are 15 months and these systems are then delivered to the Block 3 Integration Facility, NSWC Crane, 6 months (180 days) prior to delivery as part of an integrated SLQ-32 (V)7 system. The 180 days is required for integration and testing with SEWIP Block 3 at the NSCW Crane Integration Facility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                             |                                                   |
| TC059: SURFACE ELECTRONIC WARFARE (EW) IMPROVEMENTS BLOCK 2<br>Block 2 will provide AN/SLQ-32(V) an upgraded antenna, receiver, and combat systems interface. The upgrades will pace the threat, improve detection and accuracy and mitigate Electromagnetic Interference (EMI). The Block 2 hardware cost includes the SEWIP Block 2 ES system, SLA-10D blanker, Common Processing System, Common Display System, Liquid Conditioning Unit and Data Adaptation Processor. The SEWIP Block 1B3 and Block 2 units are installed conjunctively and compose the AN/SLQ-32(V)6 system. The SEWIP Block 1B3, Block 2 and Block 3 units are installed conjunctively to compose the AN/SLQ-32(V)7 system. The SEWIP Block 2 P-3a funding has been broken out to separately show systems installed with SEWIP Block 1B3 (FMP Block 2 for SLQ-32 (V)6 ) and systems installed with SEWIP Block 1B3 and Block 3 (FMP Block 2 for SLQ-32 (V)7). For FMP Block 2 systems for SLQ-32 (V)7, production lead times for Block 2 are 17 months and these systems are then delivered to the system integrator, NSWC Crane, 6 months (180 days) prior to delivery as part of an integrated SLQ-32 (V)7 system. The 180 days is required for integration and testing with SEWIP Block 3 at the NSWC Crane Integration Facility. |                                             |                                                   |
| TC060: SURFACE ELECTRONIC WARFARE (EW) IMPROVEMENTS BLOCK 3:<br>Block 3 will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide a common EA capability to surface combatants (CVN, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms. The program builds on the EW Electronic Support (ES) capability delivered by Blocks 1 and 2. Development Status/Major Milestones are: Long Lead Material (LLM) was procured Q4 FY17, Milestone C Low Rate Initial Production (LRIP) Q4 FY18, IOT&E Q1 FY21, FRP is Q2 FY22. The SEWIP Block 1B3, Block 2 and Block 3 units compose the AN/SLQ-32(V)7 system. This may be accomplished as a conjunctive installation with all SEWIP components installed at the same time or as a non-conjunctive installation by installing the SEWIP Block 3 on a ship with SEWIP Block 1B3 and 2 previously installed.                                                                                                                                                                                                                                                                       |                                             |                                                   |
| Block 3T (AN/SLQ-59) will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ32(V) system to keep pace with the threat. Block 3T provides initial, limited interim capability of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) system to meet an urgent operational needs (UON) statement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                   |
| TC5IN: FMP INSTALLATIONS<br>Shipboard installation of AN/SLQ-32(V) ECP/Field Changes and the Surface EW Improvements Blocks 1, 2 and 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                                   |
| TC6IN: NON-FMP INSTALLATIONS<br>Installation of AN/SLQ-32(V) ECP/Field Changes and the Surface EW Improvements Blocks 1, 2 and 3 at Shore Site Facilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                                   |
| [P40A / TC956 - USCG WMSL AN/SLQ-32 B(V)2]: TC956 - UNITED STATES COAST GUARD (USCG) WMSL AN/SLQ-32B(V)2:<br>This is a new requirement at PB19 to support USCG WMSL 758 and 759 and is in accordance with the requirements of OPNAVINST 4000.79A for Navy Type - Navy Owned (NTNO) material. NTNO material is procured by the Navy and installed by the USCG.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                                   |
| [P40A / TC959 - SEWIP BLOCK 2 LITE FOR USCG OPC SHIPS]: TC959 - SEWIP BLOCK 2 LITE FOR UNITED STATES COAST GUARD (USCG) OPC SHIPS:<br>This details the requirements for SEWIP Block 1B2 and SEWIP Lite systems in support of USCG OPC ships. These requirements were included in the SEWIP Block 1B1, TC056, and SEWIP Block 2, TC059, P-3a budget exhibits at PB18. OPNAVINST 4000.79A for Navy Type - Navy Owned (NTNO) material applies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                                   |
| Block 2 Lite is a variant of the Block 2 specifically tailored for the needs of small ships, such as LCS, OPC and the Fast Frigate, to address fleet emergent needs for a robust, capable, and sustainable EW system that meets the space, weight and power limitations of these smaller ships.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                                   |
| [P40A / SEWIP BLOCK 1B2 UNITS USCG SHIP UNITS]: Notes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                                   |



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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             | Date: February 2018                               |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 4: Electronic Warfare Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Program Elements for Code B Items: 0204228N | Other Related Program Elements: N/A               |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                             |                                                   |
| <p>(1) This line was previously located in "TC056 - BLOCK 1B2 FEDERATED SEI" but was split out due to OPNAVINST 4000.79A for Navy Type - Navy Owned material (NTNO). NTNO material is procured by the Navy and installed by the USCG.</p> <p>(2) Cost increase from FY20-FY21 is a result of redesign due to multiple obsolescence issues.</p> <p>[P40A / SEWIP BLOCK 1B2 UNITS USCG SHORE UNITS]: Note:</p> <p>(1) This line was previously located in "TC056 - BLOCK 1B2 FEDERATED SEI" but was split out due to OPNAVINST 4000.79A for Navy Type - Navy Owned (NTNO) material. NTNO material is procured by the Navy and installed by the USCG.</p> <p>[P40A / SEWIP BLOCK 2 LITE USCG SHIP UNITS]: Notes:</p> <p>(1) This line was previously located in "TC056 - BLOCK 1B3 HGHS" but was split out due to OPNAVINST 4000.79A for Navy Type - Navy Owned material (NTNO). NTNO material is procured by the Navy and installed by the USCG.</p> <p>(2) The Block 2 Lite - OPC requirements have changed since PB18. The two units procured in prior year are now shown as shore units; these were depicted as one ship and one shore at PB18. These units are required for one shore site unit and an Environmental Test Qualification (EQT) unit. One ship unit has been added in FY18 and FY19 to support OPC 1 and OPC 2, respectively, based on in yard need dates for these ships.</p> <p>[P40A / SEWIP BLOCK 2 LITE USCG SHORE UNITS]: Note:</p> <p>This line was previously located in "TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM" but was split out due to OPNAVINST 4000.79A for Navy Type - Navy Owned (NTNO) material. NTNO material is procured by the Navy and installed by the USCG.</p> <p>[P40A / SEWIP BLOCK 2 LITE USCG SHORE INSTALL]: Note:</p> <p>This line was previously located in "TC056 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM" Shore Site Installs will be funded through the SEWIP Program.</p> <p>[P40A / TC960 - SOLID STATE PRODUCT SUPPORT INTEGRATOR (PSI)]: TC960 - SOLID STATE PRODUCT SUPPORT INTEGRATOR (PSI)</p> <p>The Solid State Product Support Integrator (PSI) for Radio Frequency (RF) funding line supports the stand-up of this capability for select components of SEWIP Block 3. The Solid State PSI, will provide engineering analysis and product support strategies as well as test and repair capabilities for the high band (HB) and low band (LB) transmit (Tx) and receive (Rx) components of SEWIP Block 3. Solid State PSI funding supports the procurements (investment expense) of HB and LB Tx and Rx module test and repair equipment in FY20-24. The Solid State PSI capability is shared with AMDR.</p> <p>Note:</p> <p>(1) TC960 Solid State PSI Procurements provide the following, Test Fixture (FY20), Text Set (FY21), Repair Equipment (FY22), and Calibration Equipment (FY23).</p> <p>[P40A / TC960 - MULTIPURPOSE RECONFIGURABLE TRAINING SYSTEM]: TC960 - MULTIPURPOSE RECONFIGURABLE TRAINING SYSTEM (MRTS)</p> <p>The Multipurpose Reconfigurable Training System (MRTS) is a new requirement at PB19 and provides support for Fleet maintenance training for SEWIP Block 2 and SEWIP Block 3. MRTS simulates the tactical system's components and subcomponents necessary for training without requiring the procurement of a full SEWIP Block 1B3, Block 2, or Block 3 system. This has resulted in an overall reduction of one shore site unit for each Block (procurement and installation) since PB18.</p> |                                             |                                                   |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------|---------------------------------------------------|-------------------------------------|--|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                    |  |                                             | Date: February 2018                               |                                     |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 4: Electronic Warfare Equipment |  |                                             | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |                                     |  |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                             |  | Program Elements for Code B Items: 0204228N |                                                   | Other Related Program Elements: N/A |  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                 |  |                                             |                                                   |                                     |  |

| Exhibits Schedule |                                                                      |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|----------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                               | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | AN/SLQ-32                                                            | P-5a        |       |                | - / 10.126                               | - / 0.829                                | - / 11.336                               | - / 13.061                               | - / -                                    | - / 13.061                               |
| P-3a              | 1 / TC056 - BLOCK 1B1 SSES (SHIPALT/AIT)                             |             |       |                | - / 43.707                               | - / 0.119                                | - / 1.632                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 2 / TC056 - BLOCK 1B2 FEDERATED SEI (SHIPALT/AIT)                    |             |       |                | - / 54.569                               | - / 1.184                                | - / 2.096                                | - / 3.152                                | - / 0.000                                | - / 3.152                                |
| P-3a              | 3 / TC056 - BLOCK 1B3 HGHS (SHIPALT/AIT)                             |             |       |                | - / 67.741                               | - / 19.698                               | - / 14.497                               | - / 26.422                               | - / 0.000                                | - / 26.422                               |
| P-3a              | 4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM (SHIPALT/AIT)     |             |       |                | - / 527.691                              | - / 150.016                              | - / 131.434                              | - / 228.705                              | - / 0.000                                | - / 228.705                              |
| P-3a              | 5 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM (SHIPALT/AIT)      |             |       |                | - / 0.000                                | - / 28.909                               | - / 71.509                               | - / 149.004                              | - / 0.000                                | - / 149.004                              |
| P-3a              | 6 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System (SHIPALT/AIT) |             |       |                | - / 79.320                               | - / 43.246                               | - / 7.929                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                |             |       |                | - / 783.154                              | - / 244.001                              | - / 240.433                              | - / 420.344                              | - / 0.000                                | - / 420.344                              |

  

| Exhibits Schedule |                                                                      |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|----------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                               | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a             | AN/SLQ-32                                                            | P-5a        |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / TC056 - BLOCK 1B1 SSES (SHIPALT/AIT)                             |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 45.458                               |
| P-3a              | 2 / TC056 - BLOCK 1B2 FEDERATED SEI (SHIPALT/AIT)                    |             |       |                | - / 1.903                                | - / 4.377                                | - / 2.386                                | - / 5.170                                | - / 9.451                                | - / 84.288                               |
| P-3a              | 3 / TC056 - BLOCK 1B3 HGHS (SHIPALT/AIT)                             |             |       |                | - / 24.691                               | - / 29.278                               | - / 22.134                               | - / 15.448                               | - / 19.221                               | - / 239.130                              |
| P-3a              | 4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM (SHIPALT/AIT)     |             |       |                | - / 237.649                              | - / 266.944                              | - / 164.226                              | - / 88.588                               | - / 163.878                              | - / 1,959.131                            |
| P-3a              | 5 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM (SHIPALT/AIT)      |             |       |                | - / 281.734                              | - / 379.793                              | - / 297.758                              | - / 357.762                              | - / 980.815                              | - / 2,547.284                            |
| P-3a              | 6 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System (SHIPALT/AIT) |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 130.495                              |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                |             |       |                | - / 554.399                              | - / 693.782                              | - / 498.954                              | - / 478.252                              | - / 1,262.099                            | - / 5,175.418                            |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**  
The increase from FY 2018 to FY 2019 is attributed to the procurement of six additional Block 2 units, two additional Block 3 units, and eight Block 2 installations.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                       |       |                |                |            |                   |                |            |                   |                                                   |            |                   |                |            |                   |                | Date: February 2018                  |                   |                |            |                   |  |
|---------------------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|---------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|--------------------------------------|-------------------|----------------|------------|-------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 4                          |       |                |                |            |                   |                |            |                   | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |            |                   |                |            |                   |                | Aggregated Items Title:<br>AN/SLQ-32 |                   |                |            |                   |  |
| Item Number / Title [DODIC]                                                                       | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018                                           |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                      |                   | FY 2019 Total  |            |                   |  |
|                                                                                                   |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                    | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                           | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |  |
| 1) TC956 - USCG WMSL AN/SLQ-32 B(V)2                                                              |       |                |                |            |                   |                |            |                   |                                                   |            |                   |                |            |                   |                |                                      |                   |                |            |                   |  |
| 1.1) WMSL 758 AN/SLQ-32 B(V)2 <sup>(†)</sup>                                                      | A     |                | -              | -          | -                 | -              | -          | -                 | 2,513K                                            | 1          | 2.513             | -              | -          | -                 | -              | -                                    | -                 | -              | -          | -                 |  |
| 1.2) WMSL 759 AN/SLQ-32 B(V)2 <sup>(†)</sup>                                                      | A     |                | -              | -          | -                 | -              | -          | -                 | -                                                 | -          | -                 | 2,543K         | 1          | 2.543             | -              | -                                    | -                 | 2,543K         | 1          | 2.543             |  |
| Subtotal: 1) TC956 - USCG WMSL AN/SLQ-32 B(V)2                                                    |       |                | -              | -          | 0.000             | -              | -          | -                 | -                                                 | -          | 2.513             | -              | -          | 2.543             | -              | -                                    | -                 | -              | -          | 2.543             |  |
| 2) TC959 - SEWIP BLOCK 2 LITE FOR USCG OPC SHIPS                                                  |       |                |                |            |                   |                |            |                   |                                                   |            |                   |                |            |                   |                |                                      |                   |                |            |                   |  |
| 2.1) SEWIP BLOCK 1B2 UNITS USCG SHIP UNITS <sup>(†)</sup>                                         | A     |                | -              | -          | -                 | -              | -          | -                 | 370,000.00                                        | 1          | 0.370             | 370,000.00     | 1          | 0.370             | -              | -                                    | -                 | 370,000.00     | 1          | 0.370             |  |
| 2.2) SEWIP BLOCK 1B2 UNITS USCG SHORE UNITS                                                       | A     |                | 370,000.00     | 2          | 0.740             | -              | -          | -                 | -                                                 | -          | -                 | -              | -          | -                 | -              | -                                    | -                 | -              | -          | -                 |  |
| 2.3) SEWIP BLOCK 2 LITE USCG SHIP UNITS <sup>(†)</sup>                                            | A     |                | -              | -          | -                 | -              | -          | -                 | 4,701K                                            | 1          | 4.701             | 4,846K         | 1          | 4.846             | -              | -                                    | -                 | 4,846K         | 1          | 4.846             |  |
| 2.4) SEWIP BLOCK 2 LITE USCG SHORE UNITS                                                          | A     |                | 4,693K         | 2          | 9.386             | -              | -          | -                 | -                                                 | -          | -                 | -              | -          | -                 | -              | -                                    | -                 | -              | -          | -                 |  |
| 2.5) SEWIP BLOCK 2 LITE USCG SHORE INSTALL                                                        | A     |                | -              | -          | -                 | 414,500.00     | 2          | 0.829             | -                                                 | -          | -                 | -              | -          | -                 | -              | -                                    | -                 | -              | -          | -                 |  |
| Subtotal: 2) TC959 - SEWIP BLOCK 2 LITE FOR USCG OPC SHIPS                                        |       |                | -              | -          | 10.126            | -              | -          | 0.829             | -                                                 | -          | 5.071             | -              | -          | 5.216             | -              | -                                    | -                 | -              | -          | 5.216             |  |
| 4) TC960 - MULTIPURPOSE RECONFIGURABLE TRAINING SYSTEM                                            |       |                |                |            |                   |                |            |                   |                                                   |            |                   |                |            |                   |                |                                      |                   |                |            |                   |  |
| 4.1) SEWIP BLOCK 2 MRTS UNITS <sup>(†)</sup>                                                      | A     |                | -              | -          | -                 | -              | -          | -                 | -                                                 | -          | -                 | 600,000.00     | 2          | 1.200             | -              | -                                    | -                 | 600,000.00     | 2          | 1.200             |  |
| 4.3) SEWIP BLOCK 2 MRTS SOFTWARE NRE                                                              | A     |                | -              | -          | -                 | -              | -          | -                 | -                                                 | -          | 3.752             | -              | -          | -                 | -              | -                                    | -                 | -              | -          | -                 |  |
| 4.4) SEWIP BLOCK 3 MRTS SOFTWARE NRE                                                              | A     |                | -              | -          | -                 | -              | -          | -                 | -                                                 | -          | -                 | -              | -          | 4.102             | -              | -                                    | -                 | -              | -          | 4.102             |  |
| Subtotal: 4) TC960 - MULTIPURPOSE RECONFIGURABLE TRAINING SYSTEM                                  |       |                | -              | -          | 0.000             | -              | -          | -                 | -                                                 | -          | 3.752             | -              | -          | 5.302             | -              | -                                    | -                 | -              | -          | 5.302             |  |
| Total                                                                                             |       |                | -              | -          | 10.126            | -              | -          | 0.829             | -                                                 | -          | 11.336            | -              | -          | 13.061            | -              | -                                    | -                 | -              | -          | 13.061            |  |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding. |       |                |                |            |                   |                |            |                   |                                                   |            |                   |                |            |                   |                |                                      |                   |                |            |                   |  |
| (†) indicates the presence of a P-5a                                                              |       |                |                |            |                   |                |            |                   |                                                   |            |                   |                |            |                   |                |                                      |                   |                |            |                   |  |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |                     |                                          |                                                   |                      |               |                              | Date: February 2018            |                          |                        |                               |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------|------------------------------------------|---------------------------------------------------|----------------------|---------------|------------------------------|--------------------------------|--------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |                     |                                          | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |                      |               |                              | Aggregated Items:<br>AN/SLQ-32 |                          |                        |                               |                   |
| Item Number / Title [DODIC]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | O<br>C<br>O | FY                  | Contractor and Location                  | Method/Type<br>or<br>Funding Vehicle              | Location of PCO      | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i>           | Unit Cost<br><i>(\$)</i> | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1) TC956 - USCG WMSL AN/SLQ-32 B(V)2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                     |                                          |                                                   |                      |               |                              |                                |                          |                        |                               |                   |
| 1.1) WMSL 758 AN/SLQ-32 B(V)2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             | 2018                | Crane Organic / Crane, Indiana           | C / FFP                                           | None                 | Nov 2017      | Sep 2018                     | 1                              | 2,513K                   | N                      |                               | Mar 2014          |
| 1.2) WMSL 759 AN/SLQ-32 B(V)2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             | 2019 <sup>(1)</sup> | Crane Organic / Crane, Indiana           | C / FFP                                           | None                 | Nov 2018      | Sep 2019                     | 1                              | 2,543K                   | N                      |                               | Mar 2014          |
| 2) TC959 - SEWIP BLOCK 2 LITE FOR USCG OPC SHIPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                     |                                          |                                                   |                      |               |                              |                                |                          |                        |                               |                   |
| 2.1) SEWIP BLOCK 1B2 UNITS<br>USCG SHIP UNITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             | 2018 <sup>(2)</sup> | General Dynamics<br>AIC / Fair Lakes, VA | C / FFP                                           | NSWC Crane           | Feb 2018      | Apr 2019                     | 1                              | 370,000.00               | Y                      |                               | Mar 2016          |
| 2.1) SEWIP BLOCK 1B2 UNITS<br>USCG SHIP UNITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             | 2019                | General Dynamics<br>AIC / Fair Lakes, VA | C / FFP                                           | NSWC Crane           | Feb 2019      | Apr 2020                     | 1                              | 370,000.00               | N                      |                               | Mar 2016          |
| 2.3) SEWIP BLOCK 2 LITE USCG<br>SHIP UNITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             | 2018                | Lockheed Martin / Syracuse, NY           | C / FFP                                           | Washington Navy Yard | Mar 2018      | Aug 2018                     | 1                              | 4,701K                   | Y                      |                               | Mar 2015          |
| 2.3) SEWIP BLOCK 2 LITE USCG<br>SHIP UNITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             | 2019                | Lockheed Martin / Syracuse, NY           | C / FFP                                           | Washington Navy Yard | Mar 2019      | Aug 2019                     | 1                              | 4,846K                   | N                      |                               | Mar 2015          |
| 4) TC960 - MULTIPURPOSE RECONFIGURABLE TRAINING SYSTEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                     |                                          |                                                   |                      |               |                              |                                |                          |                        |                               |                   |
| 4.1) SEWIP BLOCK 2 MRTS<br>UNITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 2019 <sup>(3)</sup> | TBD / TBD                                | C / TBD                                           | TBD                  | Mar 2019      | Mar 2020                     | 2                              | 600,000.00               | Y                      |                               | Aug 2016          |
| Footnotes:<br><sup>(1)</sup> TC956 - USCG WMSL AN/SLQ-32B(V)2: This is a new requirement at PB19 to support United States Coast Guard (USCG) WMSL 758 and 759 and is in accordance with the requirements of OPNAVINST 4000.79A for Navy Type - Navy Owned (NTNO) material. NTNO material is procured by the Navy and installed by the USCG.<br><sup>(2)</sup> TC959 - SEWIP BLOCK 2 LITE FOR USCG OPC SHIPS: This details the requirements for SEWIP Block 1B2 and SEWIP Lite systems in support of USCG OPC ships. These requirements were included in the SEWIP Block 1B1, TC056, and SEWIP Block 2, TC059, P-3a budget exhibits at PB18. OPNAVINST 4000.79A for Navy Type - Navy Owned (NTNO) material applies. Block 2 Lite is a variant of the Block 2 specifically tailored for the needs of small ships, such as LCS, OPC and the Fast Frigate, to address fleet emergent needs for a robust, capable, and sustainable EW system, that meets the space, weight and power limitations of these smaller ships. OPC requirements have changed since PB18. The two units procured in prior year are now shown as shore units; these were depicted as one ship and one shore at PB18. These units are required for one shore site unit and an Environmental Test Qualification (EQT) unit. See P40A note on Page 3 for additional details.<br><sup>(3)</sup> TC960 - MULTIPURPOSE RECONFIGURABLE TRAINING SYSTEM (MRTS): The Multipurpose Reconfigurable Training System (MRTS) is a new requirement at PB19 and provides support for Fleet maintenance training for SEWIP Block 2 and SEWIP Block 3. MRTS simulates the tactical system's components and subcomponents necessary for training without requiring the procurement of a full SEWIP Block 1B3, Block 2, or Block 3 system. This has resulted in an overall reduction of one shore site unit for each Block (procurement and installation) since PB18. |             |                     |                                          |                                                   |                      |               |                              |                                |                          |                        |                               |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                          | <b>Date:</b> February 2018                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>1 / TC056 - BLOCK 1B1 SSES |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 43.707      | 0.119   | 1.632   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 45.458 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 43.707      | 0.119   | 1.632   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 45.458 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 43.707      | 0.119   | 1.632   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 45.458 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Small Ship Electronic Support Measures System (SSES) provides Specific Emitter Identification (SEI) capability to various ships/ship classes in a stand-alone configuration. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

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|--------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                 |                                |                                |                                |                                |                                                          |                                |                                |                                |                                | <b>Date:</b> February 2018                                        |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4            |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>1 / TC056 - BLOCK 1B1 SSES |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                    |                                |                                |                                |                                |                                                          |                                | <b>MDAP/MAIS Code:</b>         |                                |                                |                                                                   |                                |                                |  |
| <b>Models of Systems Affected:</b> TC056 SURFACE EW IMPROVEMENTS BLOCK 1: BLOCK 1B1 - SSES |                                |                                |                                |                                | <b>Modification Type:</b> SHIPALT/AIT                    |                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>                                     |                                |                                |  |
| <b>Financial Plan</b>                                                                      | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                       | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                    | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                         |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B1 SSES                                    |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| B Kits                                                                                     |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| Recurring                                                                                  |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| 1.1.1) CNSG EQUIPMENT - NonOrganic <sup>(4)</sup>                                          | 15 / 0.000                     | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | 15 / 0.000                     |  |
| 1.1.2) FMP SHIP UNITS (Field Change) - NonOrganic                                          | 85 / 18.226                    | 37 / 0.119                     | 44 / 0.132                     | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | 166 / 18.477                   |  |
| <b>Subtotal: Recurring</b>                                                                 | - / 18.226                     | - / 0.119                      | - / 0.132                      | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / 0.000                      | - / 18.477                     |  |
| <b>Subtotal: TC056 - BLOCK 1B1 SSES</b>                                                    | 100 / 18.226                   | 37 / 0.119                     | 44 / 0.132                     | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | 181 / 18.477                   |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                       | - / 18.226                     | - / 0.119                      | - / 0.132                      | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / 0.000                      | - / 18.477                     |  |
| <b>Support (All Modification Items)</b>                                                    |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| 2.1) Production Support                                                                    | - / 8.704                      | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | - / 8.704                      |  |
| 2.2) Tech Refresh <sup>(5)</sup>                                                           | - / 3.479                      | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | - / 3.479                      |  |
| <b>Subtotal: Support</b>                                                                   | - / 12.183                     | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / 0.000                      | - / 12.183                     |  |
| <b>Installation</b>                                                                        |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B1 SSES                                    | - / 13.298                     | - / 0.000                      | - / 1.500                      | - / 0.000                      | - / 0.000                                                | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                         | - / 0.000                      | - / 14.798                     |  |
| <b>Subtotal: Installation</b>                                                              | - / 13.298                     | - / -                          | - / 1.500                      | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / 0.000                      | - / 14.798                     |  |
| <b>Total</b>                                                                               |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                   | 43.707                         | 0.119                          | 1.632                          | 0.000                          | 0.000                                                    | 0.000                          | 0.000                          | 0.000                          | 0.000                          | 0.000                                                             | 0.000                          | 45.458                         |  |

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|-------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------|--------------------------------------|--------------------------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-------------------------------------------------------------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                      |            |                                |                                |                                |                                |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                               |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |                                      |                                |                                |           |           |                |           |           |           | <b>Modification Number / Title:</b><br>1 / TC056 - BLOCK 1B1 SSES |           |           |           |                |           |           |           |           |            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                         |            |                                |                                |                                |                                |                                |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                   |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B1 SSES                                         |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Manufacturer Information</b>                                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| Manufacturer Name: General Dynamics AIS                                                         |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                | Manufacturer Location: Fair Lakes VA |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| Administrative Leadtime (in Months): 1                                                          |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                | Production Leadtime (in Months): 3   |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Dates</b>                                                                                    |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                 |                                                          |                                |                                      | <b>FY 2020</b>                 |                                |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b>                                                    |           |           |           | <b>FY 2023</b> |           |           |           |           |            |  |
| Contract Dates                                                                                  |            | Dec 2017                       |                                |                                |                                | Jan 2018                       |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| Delivery Dates                                                                                  |            | Mar 2018                       |                                |                                |                                | Apr 2018                       |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
|                                                                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Information</b>                                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Method of Implementation:</b> SHIPALT/AIT:: Installation Name: CNSG EQUIPMENT                |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Cost</b>                                                                        |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                           | <b>To Complete</b>             | <b>Total</b>                         |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
|                                                                                                 |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| Prior Years                                                                                     |            | 15 / 2.206                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | 0 / 0.000                      | 15 / 2.206                           |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2017                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2018                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2019                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2020                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2021                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2022                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| FY 2023                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| To Complete                                                                                     |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                                | - / -                          |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| Total                                                                                           |            | 15 / 2.206                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | 0 / 0.000                      | 15 / 2.206                           |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Schedule</b>                                                                    |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
|                                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                 |                                                          |                                |                                      | <b>FY 2020</b>                 |                                |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b>                                                    |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |  |
|                                                                                                 |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                                                | <b>Q3</b>                      | <b>Q4</b>                            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                         | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |  |
| In                                                                                              | 15         | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                                                        | -                              | -                                    | -                              | -                              | -         | -         | -              | -         | -         | -         | -                                                                 | -         | -         | -         | -              | -         | -         | -         | -         | 15         |  |
| Out                                                                                             | 15         | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                                                        | -                              | -                                    | -                              | -                              | -         | -         | -              | -         | -         | -         | -                                                                 | -         | -         | -         | -              | -         | -         | -         | -         | 15         |  |
|                                                                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Method of Implementation:</b> SHIPALT/AIT:: Installation Name: FMP SHIP UNITS (Field Change) |            |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                          |                                |                                      |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| <b>Installation Cost</b>                                                                        |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                           | <b>To Complete</b>             | <b>Total</b>                         |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
|                                                                                                 |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)       | Qty (Each) / Total Cost (\$ M) |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |
| Prior Years                                                                                     |            | 68 / 11.092                    | - / -                          | 17 / 0.261                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | 0 / 0.000                      | 85 / 11.353                          |                                |                                |           |           |                |           |           |           |                                                                   |           |           |           |                |           |           |           |           |            |  |

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|---------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                          | <b>Date:</b> February 2018                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>1 / TC056 - BLOCK 1B1 SSES |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** TC056 - BLOCK 1B1 SSES

**Installation Information**

**Method of Implementation:** SHIPALT/AIT:: Installation Name: FMP SHIP UNITS (Field Change)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| FY 2017           | - / -                          | - / -                          | 37 / 0.566                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 37 / 0.566                     |
| FY 2018           | - / -                          | - / -                          | 44 / 0.673                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 44 / 0.673                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 68 / 11.092                    | - / -                          | 98 / 1.500                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 166 / 12.592                   |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 68  | -       | -  | -  | -  | -       | 17 | 38 | 43 | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 166 |
| Out | 52  | 16      | -  | -  | -  | -       | -  | 17 | 38 | 43      | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 166 |

**Footnotes:**

(4) Fifteen (15) units procured by Chief Naval Security Group (CNSG)

(5) Additional Tech Refresh procurements were required in FY16-FY18 to implement tech refresh changes. The Tech Refresh hardware consists of circuit cards and an Operating System update. The tech refresh applies to all in-service CG, DDG, and Amphibious ships with SEI systems (114 ships).



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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|----------------------------------------------------------|----------------------|------------------------|----------------|----------------|----------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                |                     |                                                          |                      |                        |                |                | <b>Date:</b> February 2018                                                 |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / TC056 - BLOCK 1B2 FEDERATED SEI |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     |                                                          |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                            |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                       | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                             | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                        | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 54.569             | 1.184          | 2.096          | 3.152               | 0.000                                                    | 3.152                | 1.903                  | 4.377          | 2.386          | 5.170                                                                      | 9.451              | 84.288        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                        | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 54.569             | 1.184          | 2.096          | 3.152               | 0.000                                                    | 3.152                | 1.903                  | 4.377          | 2.386          | 5.170                                                                      | 9.451              | 84.288        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                        | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>54.569</b>      | <b>1.184</b>   | <b>2.096</b>   | <b>3.152</b>        | <b>0.000</b>                                             | <b>3.152</b>         | <b>1.903</b>           | <b>4.377</b>   | <b>2.386</b>   | <b>5.170</b>                                                               | <b>9.451</b>       | <b>84.288</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                |                     |                                                          |                      |                        |                |                |                                                                            |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                   | -                                                        | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                   | -                                                        | -                    | -                      | -              | -              | -                                                                          | -                  | -             |
| <p><b>Description:</b><br/>The federated SEI, consisting of SEI hardware plus an ICAD modification kit, fully integrates SEI functionality with the ICAD/Q-70 console. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.</p> <p><b>Notes:</b></p> <p>(1) Procurement of 1B2 systems in support of USCG OPC ships has been moved into a P-40A exhibit (TC959) within this budget in accordance with OPNAVINST 4000.79A for Navy Type - Navy Owned material.</p> <p>(2) Cost increase from FY20-FY21 is a result of redesign due to multiple obsolescence issues.</p> |                    |                |                |                     |                                                          |                      |                        |                |                |                                                                            |                    |               |

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|-----------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                          |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                 |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                     |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>2 / TC056 - BLOCK 1B2 FEDERATED SEI |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                             |                                       |                                       |                                       |                                                          |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                            |                                       |                                       |  |
| <b>Models of Systems Affected:</b> TC056 SURFACE EW IMPROVEMENTS BLOCK 1: BLOCK 1B2 - FEDERATED SEI |                                       |                                       |                                       | <b>Modification Type:</b> SHIPALT/AIT                    |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                                            |                                       |                                       |  |
| <b>Financial Plan</b>                                                                               | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                      | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                             | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                    | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                  |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> TC056 - BLOCK 1B2 FEDERATED SEI                                    |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| B Kits                                                                                              |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| Recurring                                                                                           |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| 1.1.1) FMP SHIP UNITS - NonOrganic                                                                  | 60 / 22.200                           | 3 / 1.110                             | 3 / 1.110                             | 2 / 0.740                                                | - / -                                 | 2 / 0.740                             | 2 / 0.770                             | 5 / 2.865                             | 1 / 0.585                             | 5 / 2.985                                                                  | 2 / 1.242                             | 83 / 33.607                           |  |
| 1.1.2) NON-FMP SHORE SITE UNITS - NonOrganic                                                        | 2 / 0.682                             | - / -                                 | 1 / 0.370                             | - / -                                                    | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | 3 / 1.052                             |  |
| <i>Subtotal: Recurring</i>                                                                          | - / 22.882                            | - / 1.110                             | - / 1.480                             | - / 0.740                                                | - / -                                 | - / 0.740                             | - / 0.770                             | - / 2.865                             | - / 0.585                             | - / 2.985                                                                  | - / 1.242                             | - / 34.659                            |  |
| <i>Subtotal: TC056 - BLOCK 1B2 FEDERATED SEI</i>                                                    | 62 / 22.882                           | 3 / 1.110                             | 4 / 1.480                             | 2 / 0.740                                                | - / -                                 | 2 / 0.740                             | 2 / 0.770                             | 5 / 2.865                             | 1 / 0.585                             | 5 / 2.985                                                                  | 2 / 1.242                             | 86 / 34.659                           |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                | - / 22.882                            | - / 1.110                             | - / 1.480                             | - / 0.740                                                | - / -                                 | - / 0.740                             | - / 0.770                             | - / 2.865                             | - / 0.585                             | - / 2.985                                                                  | - / 1.242                             | - / 34.659                            |  |
| <b>Support (All Modification Items)</b>                                                             |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| 2.1) Production Support                                                                             | - / 7.935                             | - / -                                 | - / 0.120                             | - / 0.125                                                | - / -                                 | - / 0.125                             | - / 0.127                             | - / 0.129                             | - / 0.132                             | - / 0.134                                                                  | - / 1.177                             | - / 9.879                             |  |
| 2.2) Tech Refresh                                                                                   | - / 5.739                             | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / 2.215                             | - / 7.954                             |  |
| 2.3) Engineering Change Proposals (ECPs)                                                            | - / -                                 | - / -                                 | - / -                                 | - / 0.033                                                | - / -                                 | - / 0.033                             | - / 0.035                             | - / 0.069                             | - / 0.035                             | - / 0.018                                                                  | - / 0.112                             | - / 0.302                             |  |
| 2.4) INCO Spares                                                                                    | - / -                                 | - / -                                 | - / -                                 | - / 0.258                                                | - / -                                 | - / 0.258                             | - / 0.264                             | - / 0.242                             | - / 0.165                             | - / 0.196                                                                  | - / 0.832                             | - / 1.957                             |  |
| <i>Subtotal: Support</i>                                                                            | - / 13.674                            | - / -                                 | - / 0.120                             | - / 0.416                                                | - / -                                 | - / 0.416                             | - / 0.426                             | - / 0.440                             | - / 0.332                             | - / 0.348                                                                  | - / 4.336                             | - / 20.092                            |  |
| <b>Installation</b>                                                                                 |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> TC056 - BLOCK 1B2 FEDERATED SEI                                    | - / 18.013                            | - / 0.074                             | - / 0.496                             | - / 1.996                                                | - / 0.000                             | - / 1.996                             | - / 0.707                             | - / 1.072                             | - / 1.469                             | - / 1.837                                                                  | - / 3.873                             | - / 29.537                            |  |
| <i>Subtotal: Installation</i>                                                                       | - / 18.013                            | - / 0.074                             | - / 0.496                             | - / 1.996                                                | - / -                                 | - / 1.996                             | - / 0.707                             | - / 1.072                             | - / 1.469                             | - / 1.837                                                                  | - / 3.873                             | - / 29.537                            |  |
| <b>Total</b>                                                                                        |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                            | <b>54.569</b>                         | <b>1.184</b>                          | <b>2.096</b>                          | <b>3.152</b>                                             | <b>0.000</b>                          | <b>3.152</b>                          | <b>1.903</b>                          | <b>4.377</b>                          | <b>2.386</b>                          | <b>5.170</b>                                                               | <b>9.451</b>                          | <b>84.288</b>                         |  |

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|                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
|----------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------|-----------|--------------------------------|---------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |            |                                |           |                                |           |                                |           |                                |           |                                                          |           | <b>Date:</b> February 2018     |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4  |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |           |                                |                                             |                                |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / TC056 - BLOCK 1B2 FEDERATED SEI |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             | <b>MDAP/MAIS Code:</b>         |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B2 FEDERATED SEI                 |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: General Dynamics AIS                                          |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                | Manufacturer Location: Fair Lakes, VA       |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 1                                   |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                | Production Leadtime <i>(in Months)</i> : 14 |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                     |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                           |           |                                |                                             | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                            |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                   |            | Aug 2017                       |           |                                |           | Feb 2018                       |           |                                |           | Feb 2019                                                 |           |                                |                                             | Feb 2020                       |           |                                |           | Feb 2021                       |           |                                                                            |           | Feb 2022                       |           |                                |           | Feb 2023       |           |           |           |           |            |
| Delivery Dates                                                                   |            | Oct 2018                       |           |                                |           | Apr 2019                       |           |                                |           | Apr 2020                                                 |           |                                |                                             | Apr 2021                       |           |                                |           | Apr 2022                       |           |                                                                            |           | Apr 2023                       |           |                                |           | Apr 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT/AIT:: Installation Name: FMP SHIP UNITS |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                         |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                       |           | <b>FY 2019 Total</b>           |                                             | <b>FY 2020</b>                 |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                             |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                  |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                           |           | Qty (Each) / Total Cost (\$ M) |                                             | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                             |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                      |            | 60 / 17.793                    |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | 0 / 0.000                      |           | 60 / 17.793                    |           |                |           |           |           |           |            |
| FY 2017                                                                          |            | - / -                          |           | 0 / 0.032                      |           | 0 / 0.138                      |           | 3 / 1.158                      |           | 0 / 0.000                                                |           | 3 / 1.158                      |                                             | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | 0 / 0.000                      |           | 3 / 1.328                      |           |                |           |           |           |           |            |
| FY 2018                                                                          |            | - / -                          |           | 0 / 0.042                      |           | 0 / 0.138                      |           | 2 / 0.815                      |           | 0 / 0.000                                                |           | 2 / 0.815                      |                                             | 1 / 0.359                      |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | 0 / 0.000                      |           | 3 / 1.354                      |           |                |           |           |           |           |            |
| FY 2019                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.023                      |           | 0 / 0.000                                                |           | 0 / 0.023                      |                                             | 0 / 0.098                      |           | 2 / 0.819                      |           | - / -                          |           | - / -                                                                      |           | 0 / 0.000                      |           | 2 / 0.940                      |           |                |           |           |           |           |            |
| FY 2020                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | 0 / 0.020                      |           | 0 / 0.124                      |           | 2 / 0.828                      |           | - / -                                                                      |           | 0 / 0.000                      |           | 2 / 0.972                      |           |                |           |           |           |           |            |
| FY 2021                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | 0 / 0.010                      |           | 0 / 0.129                      |           | 1 / 0.621                      |           | 4 / 1.689                                                                  |           | 0 / 0.000                      |           | 5 / 2.449                      |           |                |           |           |           |           |            |
| FY 2022                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | 0 / 0.010                      |           | 0 / 0.053                                                                  |           | 1 / 0.431                      |           | 1 / 0.494                      |           |                |           |           |           |           |            |
| FY 2023                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | 0 / 0.010                      |           | 0 / 0.095                                                                  |           | 5 / 2.404                      |           | 5 / 2.509                      |           |                |           |           |           |           |            |
| To Complete                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | 2 / 1.038                      |           | 2 / 1.038                      |           |                |           |           |           |           |            |
| Total                                                                            |            | 60 / 17.793                    |           | 0 / 0.074                      |           | 0 / 0.276                      |           | 5 / 1.996                      |           | 0 / 0.000                                                |           | 5 / 1.996                      |                                             | 1 / 0.487                      |           | 2 / 1.072                      |           | 3 / 1.469                      |           | 4 / 1.837                                                                  |           | 8 / 3.873                      |           | 83 / 28.877                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                  | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                           |           |                                |                                             | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                            |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                  |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b>                                   | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                  | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                               | 60         | -                              | -         | -                              | -         | -                              | -         | -                              | -         | 3                                                        | -         | -                              | 2                                           | -                              | 1         | -                              | -         | -                              | 1         | 1                                                                          | -         | -                              | -         | 2                              | 1         | 3              | 1         | -         | -         | 8         | 83         |
| Out                                                                              | 60         | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                        | 3         | -                              | -                                           | 2                              | -         | 1                              | -         | -                              | -         | 1                                                                          | 1         | -                              | -         | -                              | 2         | 1              | 3         | 1         | -         | 8         | 83         |

## UNCLASSIFIED

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                          | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>2 / TC056 - BLOCK 1B2 FEDERATED SEI |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** TC056 - BLOCK 1B2 FEDERATED SEI

## Installation Information

**Method of Implementation:** [none specified]:: Installation Name: NON-FMP SHORE SITE UNITS

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 1 / 0.220                      | - / -                          | 1 / 0.220                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.440                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.220                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.220                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 1 / 0.220                      | - / -                          | 1 / 0.220                      | - / -                          | - / -                          | - / -                          | 1 / 0.220                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.660                      |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 1   | -       | -  | -  | -  | -       | -  | -  | 1  | -       | -  | -  | -  | 1       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |
| Out | 1   | -       | -  | -  | -  | -       | -  | -  | -  | 1       | -  | -  | -  | -       | 1  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                          |  | <b>Date:</b> February 2018 |  |                                                                   |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |  |                            |  | <b>Modification Number / Title:</b><br>3 / TC056 - BLOCK 1B3 HGHS |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 67.741      | 19.698  | 14.497  | 26.422       | 0.000       | 26.422          | 24.691  | 29.278  | 22.134  | 15.448  | 19.221      | 239.130 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 67.741      | 19.698  | 14.497  | 26.422       | 0.000       | 26.422          | 24.691  | 29.278  | 22.134  | 15.448  | 19.221      | 239.130 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 67.741      | 19.698  | 14.497  | 26.422       | 0.000       | 26.422          | 24.691  | 29.278  | 22.134  | 15.448  | 19.221      | 239.130 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

Block 1B3: High Gain High Sensitivity (HGHS)

High Gain High Sensitivity (HGHS) Adjunct Sensor is a critical improvement for threat correlation, situational awareness, and extending the battle space. Engineering Change Proposal (ECP) funding is provided to support changes resulting from software and hardware trouble reports from production, shipboard installations and/or land based testing. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems. The SEWIP Block 1B3 and Block 2 units are installed conjunctively to compose the AN/SLQ-32(V)6 system. The SEWIP Block 1B3, Block 2 and Block 3 units are installed conjunctively to compose the AN/SLQ-32(V)7 system. The SEWIP Block 1B3 P-3a funding has been broken out to separately show systems installed with SEWIP Block 2 (FMP Block 1B3 for SLQ-32 (V)6 ) and systems installed with SEWIP Block 2 and Block 3 (FMP Block 1B3 for SLQ-32 (V)7). For FMP Block 1B3 systems for SLQ-32 (V)6 and (V)7, production lead time for Block 1B3 is 15 months and these systems are then delivered to the system integrator, NSWC Crane, 6 months (A-180 days) prior to the start of the installation availability for integration into a SLQ-32 (V)6 or (V)7 system. 135 days is required for integration and testing with SEWIP Blocks 1B2 and 1B3 for SLQ-32 (V)6 and SEWIP Blocks 1B2, 1B3 and 3 for SLQ-32(V)7, 15 days for preparation for shipment and delivery to the shipyard 30 days prior to the start of the availability (A-30).

**Notes:**

(1) Production Support provides for Government oversight of production, Government and Original Equipment Manufacturer (OEM) support of production related software and hardware problems, and engineering as well as integrated logistics support efforts in support of production and fielding.

(2) Engineering Change Proposal (ECP) funding is to address reliability, obsolescence, and other issues associated with production, and is estimated at 3% of the total hardware cost.

(3) Installation cost estimates have been revised based on actual costs of installations to date.

(4) Total SEWIP Block 1B3 quantities being procured are the same as PB18. As a result, FMP Block 1B3 for SLQ-32(V)6 increased by seven units due to the acceleration of the SLQ-32(V)6 installation schedule. FMP Block 1B3 for SLQ-32(V)7 decreased by six units due to the decision to install six systems as non-conjunctive. One shore site system was eliminated due to the adoption of MRTS for training.

(5) Funding for Installation and Check Out (INCO) spares to support FY18-FY23 procured units is called out separately in the SEWIP Block 1B3 Support line 2.4. The increase from FY18 to FY19 is to address the INCO spares deficiencies caused by higher than anticipated failure rates.

(6) For FMP Block 1B3 systems, the production lead time is 15 months, and these systems are then delivered to the system integrator, NSWC Crane, 6 months prior to the start of the installation availability (A-180 days) where integration, testing, and preparation for shipment is conducted. 135 days are required for integration and testing of the SEWIP Blocks 1B2, 1B3 and 2 into an SLQ-32(V)6 system, preparation

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                       |                                                          | <b>Date:</b> February 2018                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                  | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>3 / TC056 - BLOCK 1B3 HGHS |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                          |                                                          | <b>MDAP/MAIS Code:</b>                                            |
| <p>for shipment (15 days) and delivery to the shipyard 30 days prior to the start of the availability (A-30). The four FY19 units installed in Q1FY22 are scheduled for delivery to the Government between 15 Mar 2021 and 3 May 2021. The integration start dates for these units are required to start no later than 15 Aug - 15 Sep 2021 in order to prepare the systems for installation</p> |                                                          |                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                  |                                                          |                                                                   |

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|                                                                                           |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
|-------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                |                                |                                |                                |                                |                                                          |                                |                                |                                |                                | <b>Date:</b> February 2018                                        |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4           |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>3 / TC056 - BLOCK 1B3 HGHS |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                   |                                |                                |                                |                                |                                                          |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                   |                                |                                |  |
| <b>Models of Systems Affected:</b> TC056 SURFACE EW IMPROVEMENTS BLOCK 1 - BLOCK 1B3 HGHS |                                |                                |                                |                                | <b>Modification Type:</b> SHIPALT/AIT                    |                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604757N                            |                                |                                |  |
| <b>Financial Plan</b>                                                                     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                       | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                    | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                        |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B3 HGHS                                   |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| B Kits                                                                                    |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| Recurring                                                                                 |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| 1.1.1) FMP BLOCK 1B3 for SLQ-32 (V)6 - NonOrganic                                         | 32 / 34.805                    | 13 / 9.165                     | 9 / 6.255                      | 15 / 10.365                    | - / -                                                    | 15 / 10.365                    | 14 / 9.870                     | 8 / 5.752                      | 4 / 2.932                      | 1 / 0.748                                                         | - / -                          | 96 / 79.892                    |  |
| 1.1.2) FMP BLOCK 1B3 for SLQ-32 (V)7 - NonOrganic                                         | - / -                          | 1 / 0.705                      | 1 / 0.695                      | 1 / 0.691                      | - / -                                                    | 1 / 0.691                      | 5 / 3.525                      | 9 / 6.471                      | 4 / 2.932                      | 1 / 0.748                                                         | 2 / 1.526                      | 24 / 17.293                    |  |
| 1.1.3) NON-FMP BLOCK 1B3 SHORE SITE - NonOrganic                                          | 7 / 8.731                      | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | 7 / 8.731                      |  |
| 1.1.4) BLK 1B3 GFE UNIT FOR BLK 3 OEM - NonOrganic                                        | 2 / 2.602                      | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                          | 2 / 2.602                      |  |
| <b>Subtotal: Recurring</b>                                                                | - / 46.138                     | - / 9.870                      | - / 6.950                      | - / 11.056                     | - / -                                                    | - / 11.056                     | - / 13.395                     | - / 12.223                     | - / 5.864                      | - / 1.496                                                         | - / 1.526                      | - / 108.518                    |  |
| <b>Subtotal: TC056 - BLOCK 1B3 HGHS</b>                                                   | 41 / 46.138                    | 14 / 9.870                     | 10 / 6.950                     | 16 / 11.056                    | - / -                                                    | 16 / 11.056                    | 19 / 13.395                    | 17 / 12.223                    | 8 / 5.864                      | 2 / 1.496                                                         | 2 / 1.526                      | 129 / 108.518                  |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                      | - / 46.138                     | - / 9.870                      | - / 6.950                      | - / 11.056                     | - / -                                                    | - / 11.056                     | - / 13.395                     | - / 12.223                     | - / 5.864                      | - / 1.496                                                         | - / 1.526                      | - / 108.518                    |  |
| <b>Support (All Modification Items)</b>                                                   |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| 2.1) Production Support                                                                   | - / 10.344                     | - / 2.156                      | - / 2.306                      | - / 2.446                      | - / -                                                    | - / 2.446                      | - / 2.189                      | - / 2.233                      | - / 2.278                      | - / 1.841                                                         | - / 1.500                      | - / 27.293                     |  |
| 2.2) Tech Refresh                                                                         | - / 0.438                      | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / 4.989                      | - / 5.427                      |  |
| 2.3) Engineering Change Proposals (ECPs)                                                  | - / 0.915                      | - / 0.137                      | - / 0.210                      | - / 0.250                      | - / -                                                    | - / 0.250                      | - / 0.320                      | - / 0.320                      | - / 0.150                      | - / 0.110                                                         | - / 0.110                      | - / 2.522                      |  |
| 2.4) INCO Spares                                                                          | - / -                          | - / -                          | - / 0.282                      | - / 1.592                      | - / -                                                    | - / 1.592                      | - / 0.263                      | - / 0.940                      | - / 0.776                      | - / -                                                             | - / -                          | - / 3.853                      |  |
| <b>Subtotal: Support</b>                                                                  | - / 11.697                     | - / 2.293                      | - / 2.798                      | - / 4.288                      | - / -                                                    | - / 4.288                      | - / 2.772                      | - / 3.493                      | - / 3.204                      | - / 1.951                                                         | - / 6.599                      | - / 39.095                     |  |
| <b>Installation</b>                                                                       |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B3 HGHS                                   | - / 9.906                      | - / 7.535                      | - / 4.749                      | - / 11.078                     | - / 0.000                                                | - / 11.078                     | - / 8.524                      | - / 13.562                     | - / 13.066                     | - / 12.001                                                        | - / 11.096                     | - / 91.517                     |  |
| <b>Subtotal: Installation</b>                                                             | - / 9.906                      | - / 7.535                      | - / 4.749                      | - / 11.078                     | - / -                                                    | - / 11.078                     | - / 8.524                      | - / 13.562                     | - / 13.066                     | - / 12.001                                                        | - / 11.096                     | - / 91.517                     |  |
| <b>Total</b>                                                                              |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                  | 67.741                         | 19.698                         | 14.497                         | 26.422                         | 0.000                                                    | 26.422                         | 24.691                         | 29.278                         | 22.134                         | 15.448                                                            | 19.221                         | 239.130                        |  |

## UNCLASSIFIED

|                                                                                                      |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------|----------------------------------------------|--------------------------------|--------------------------------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                           |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   | <b>Date:</b> February 2018                   |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                      |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>3 / TC056 - BLOCK 1B3 HGHS |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                              |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   | <b>MDAP/MAIS Code:</b>                       |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B3 HGHS                                              |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                      |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: General Dynamics AIS                                                              |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   | Manufacturer Location: Fair Lakes VA         |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime ( <i>in Months</i> ): 1                                                      |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   | Production Leadtime ( <i>in Months</i> ): 15 |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                           | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                       | Jan 2018                       | Mar 2018                       | Mar 2019                       | Mar 2020                       | Mar 2021                                                 | Mar 2022                       | Mar 2023                       |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                       | Apr 2019                       | Jun 2019                       | Jun 2020                       | Jun 2021                       | Jun 2022                                                 | Jun 2023                       | Jun 2024                       |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                      |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT/AIT:: Installation Name: FMP BLOCK 1B3 for SLQ-32 (V)6      |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                             | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                       | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                    | <b>To Complete</b>                           | <b>Total</b>                   |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                    | Qty (Each) / Total Cost (\$ M)               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                          | 9 / 8.166                      | 13 / 7.419                     | 6 / 2.780                      | 4 / 2.312                      | 0 / 0.000                                                | 4 / 2.312                      | - / -                          | - / -                          | - / -                          | - / -                                                             | 0 / 0.000                                    | 32 / 20.677                    |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                              | - / -                          | 0 / 0.116                      | 0 / 0.938                      | 10 / 5.927                     | 0 / 0.000                                                | 10 / 5.927                     | 3 / 1.776                      | - / -                          | - / -                          | - / -                                                             | 0 / 0.000                                    | 13 / 8.757                     |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                              | - / -                          | - / -                          | 0 / 0.541                      | 0 / 0.880                      | 0 / 0.000                                                | 0 / 0.880                      | 4 / 2.616                      | 5 / 2.996                      | - / -                          | - / -                                                             | 0 / 0.000                                    | 9 / 7.033                      |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                              | - / -                          | - / -                          | - / -                          | 0 / 1.504                      | 0 / 0.000                                                | 0 / 1.504                      | 0 / 1.099                      | 11 / 6.793                     | 4 / 2.426                      | - / -                                                             | 0 / 0.000                                    | 15 / 11.822                    |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | 0 / 1.661                      | 0 / 0.883                      | 12 / 7.379                     | 2 / 1.227                                                         | 0 / 0.000                                    | 14 / 11.150                    |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | 0 / 1.120                      | 0 / 0.406                      | 8 / 4.909                                                         | 0 / 0.000                                    | 8 / 6.435                      |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | 0 / 0.567                      | 0 / 0.206                                                         | 4 / 2.484                                    | 4 / 3.257                      |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | 0 / 0.142                      | 0 / 0.051                                                         | 1 / 0.621                                    | 1 / 0.814                      |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                                        | - / -                          |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                | 9 / 8.166                      | 13 / 7.535                     | 6 / 4.259                      | 14 / 10.623                    | 0 / 0.000                                                | 14 / 10.623                    | 7 / 7.152                      | 16 / 11.792                    | 16 / 10.920                    | 10 / 6.393                                                        | 5 / 3.105                                    | 96 / 69.945                    |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                         |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                      | <b>PYS</b>                     | <b>FY 2017</b>                 |                                |                                |                                                          | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                    |                                              |                                |                                | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                      |                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                         | <b>Q2</b>                                    | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                   | 9                              | 3                              | -                              | 2                              | 8                                                        | -                              | -                              | -                              | 6                              | 2                                                                 | 3                                            | 2                              | 7                              | 3              | 4         | -         | -         | 5              | 5         | 5         | 1         | 4              | 1         | 3         | 8         | 2              | 3         | 1         | 4         | 5         | 96         |
| Out                                                                                                  | 7                              | 2                              | 3                              | -                              | 2                                                        | 8                              | -                              | -                              | -                              | 6                                                                 | 2                                            | 3                              | 2                              | 7              | 3         | 4         | -         | -              | 5         | 5         | 5         | 1              | 4         | 1         | 3         | 8              | 2         | 3         | 1         | 9         | 96         |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: FMP BLOCK 1B3 for SLQ-32 (V)7 |                                |                                |                                |                                |                                                          |                                |                                |                                |                                |                                                                   |                                              |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                             | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                       | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                    | <b>To Complete</b>                           | <b>Total</b>                   |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                    | Qty (Each) / Total Cost (\$ M)               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                             | - / -                                        | - / -                          |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |



**UNCLASSIFIED**

|                                                                          |  |                                                   |                 |                                                            |  |  |  |
|--------------------------------------------------------------------------|--|---------------------------------------------------|-----------------|------------------------------------------------------------|--|--|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |  |                                                   |                 | Date: February 2018                                        |  |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 4 |  | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |                 | Modification Number / Title:<br>3 / TC056 - BLOCK 1B3 HGHS |  |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |  |                                                   | MDAP/MAIS Code: |                                                            |  |  |  |

**Modification Item 1 of 1:** TC056 - BLOCK 1B3 HGHS

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: FMP BLOCK 1B3 for SLQ-32 (V)7

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| FY 2017           | - / -                          | - / -                          | 0 / 0.135                      | 0 / 0.049                      | 0 / 0.000                      | 0 / 0.049                      | 1 / 0.592                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.776                      |
| FY 2018           | - / -                          | - / -                          | 0 / 0.135                      | 0 / 0.049                      | 0 / 0.000                      | 0 / 0.049                      | 1 / 0.592                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.776                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | 0 / 0.137                      | 0 / 0.000                      | 0 / 0.137                      | 0 / 0.050                      | 1 / 0.599                      | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.786                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.138                      | 0 / 0.611                      | 1 / 0.809                      | 4 / 2.455                      | 0 / 0.000                      | 5 / 4.013                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.560                      | 0 / 0.912                      | 4 / 2.712                      | 5 / 3.100                      | 9 / 7.284                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.425                      | 0 / 0.298                      | 4 / 2.544                      | 4 / 3.267                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.143                      | 1 / 0.680                      | 1 / 0.823                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 1.667                      | 2 / 1.667                      |
| Total             | - / -                          | - / -                          | 0 / 0.270                      | 0 / 0.235                      | 0 / 0.000                      | 0 / 0.235                      | 2 / 1.372                      | 1 / 1.770                      | 1 / 2.146                      | 8 / 5.608                      | 12 / 7.991                     | 24 / 19.392                    |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 1  | 1  | -  | 1       | -  | -  | -  | -       | 1  | -  | -  | 4       | 1  | 1  | 2  | 12 | 24  |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 1  | 1  | -       | 1  | -  | -  | -       | -  | 1  | -  | -       | 4  | 1  | 1  | 14 | 24  |

**Method of Implementation:** AIT:: Installation Name: NON-FMP BLOCK 1B3 SHORE SITE

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 5 / 1.380                      | - / -                          | 1 / 0.220                      | 1 / 0.220                      | 0 / 0.000                      | 1 / 0.220                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 7 / 1.820                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 5 / 1.380                      | - / -                          | 1 / 0.220                      | 1 / 0.220                      | 0 / 0.000                      | 1 / 0.220                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 7 / 1.820                      |

**UNCLASSIFIED**

|                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
|------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------|-----------|------------------------|----------------|-----------|-------------------------------------------------------------------|-----------|----------------|----------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                | <b>Date:</b> February 2018 |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                       |                                       |                                       |                                       |           |           |                        |                |           | <b>Modification Number / Title:</b><br>3 / TC056 - BLOCK 1B3 HGHS |           |                |                            |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           | <b>MDAP/MAIS Code:</b> |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TC056 - BLOCK 1B3 HGHS                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: NON-FMP BLOCK 1B3 SHORE SITE   |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
|                                                                                          | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                           |                                       |                                       |                                       | <b>FY 2020</b>                        |           |           |                        | <b>FY 2021</b> |           |                                                                   |           | <b>FY 2022</b> |                            |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                          |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>              | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                         | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>                  | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                       | 5          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | 1                                     | 1                                                        | -                                     | -                                     | -                                     | -                                     | -         | -         | -                      | -              | -         | -                                                                 | -         | -              | -                          | -         | -         | -              | -         | -         | -         | -         | 7          |
| Out                                                                                      | 5          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | 1                                                        | 1                                     | -                                     | -                                     | -                                     | -         | -         | -                      | -              | -         | -                                                                 | -         | -              | -                          | -         | -         | -              | -         | -         | -         | -         | 7          |
|                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: BLK 1B3 GFE UNIT FOR BLK 3 OEM |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                 |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                           | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
|                                                                                          |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                    | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| Prior Years                                                                              |            | 2 / 0.360                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | 0 / 0.000                             | 2 / 0.360                             |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2017                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2018                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2019                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2020                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2021                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2022                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| FY 2023                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| To Complete                                                                              |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| Total                                                                                    |            | 2 / 0.360                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | 0 / 0.000                             | 2 / 0.360                             |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |
|                                                                                          | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                           |                                       |                                       |                                       | <b>FY 2020</b>                        |           |           |                        | <b>FY 2021</b> |           |                                                                   |           | <b>FY 2022</b> |                            |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                          |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>              | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                         | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>                  | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                       | 2          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                        | -                                     | -                                     | -                                     | -                                     | -         | -         | -                      | -              | -         | -                                                                 | -         | -              | -                          | -         | -         | -              | -         | -         | -         | -         | 2          |
| Out                                                                                      | 2          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                        | -                                     | -                                     | -                                     | -                                     | -         | -         | -                      | -              | -         | -                                                                 | -         | -              | -                          | -         | -         | -              | -         | -         | -         | -         | 2          |
|                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |                                       |                                       |           |           |                        |                |           |                                                                   |           |                |                            |           |           |                |           |           |           |           |            |

# UNCLASSIFIED

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------|---------|---------------------------------------------------|----------------|------------------|-----------------|---------|---------------------------------------------------------------------------------------|---------|----------------|----------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |         |         |                                                   |                |                  |                 |         | Date: February 2018                                                                   |         |                |          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |         |         | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |                |                  |                 |         | Modification Number / Title:<br>4 / TC059 - BLOCK 2 ELECTRONIC<br>SUPPORT (ES) SYSTEM |         |                |          |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |         |                                                   |                |                  | MDAP/MAIS Code: |         |                                                                                       |         |                |          |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Prior<br>Years | FY 2017 | FY 2018 | FY 2019<br>Base                                   | FY 2019<br>OCO | FY 2019<br>Total | FY 2020         | FY 2021 | FY 2022                                                                               | FY 2023 | To<br>Complete | Total    |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -              | -       | -       | -                                                 | -              | -                | -               | -       | -                                                                                     | -       | -              | -        |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 527.691        | 150.016 | 131.434 | 228.705                                           | 0.000          | 228.705          | 237.649         | 266.944 | 164.226                                                                               | 88.588  | 163.878        | 1,959.13 |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -              | -       | -       | -                                                 | -              | -                | -               | -       | -                                                                                     | -       | -              | -        |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 527.691        | 150.016 | 131.434 | 228.705                                           | 0.000          | 228.705          | 237.649         | 266.944 | 164.226                                                                               | 88.588  | 163.878        | 1,959.13 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -              | -       | -       | -                                                 | -              | -                | -               | -       | -                                                                                     | -       | -              | -        |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 527.691        | 150.016 | 131.434 | 228.705                                           | 0.000          | 228.705          | 237.649         | 266.944 | 164.226                                                                               | 88.588  | 163.878        | 1,959.13 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |         |         |                                                   |                |                  |                 |         |                                                                                       |         |                |          |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -              | -       | -       | -                                                 | -              | -                | -               | -       | -                                                                                     | -       | -              | -        |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -              | -       | -       | -                                                 | -              | -                | -               | -       | -                                                                                     | -       | -              | -        |
| Description:<br>TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM<br>Block 2 will provide AN/SLQ-32(V) an upgraded antenna, receiver, and combat systems interface. The upgrades will pace the threat, improve detection and accuracy and mitigate Electromagnetic Interference (EMI). The Block 2 hardware cost includes the SEWIP Block 2 ES system, SLA-10D blanker, Common Processing System, Common Display System, Liquid Conditioning Unit and Data Adaptation Processor. The SEWIP Block 1B3 and Block 2 units are installed conjunctively and compose the AN/SLQ-32(V)6 system. The SEWIP Block 1B3, Block 2 and Block 3 units are installed conjunctively to compose the AN/SLQ-32(V)7 system. The SEWIP Block 2 P-3a funding has been broken out to separately show systems installed with SEWIP Block 1B3 (FMP Block 2 for SLQ-32 (V)6 ) and systems installed with SEWIP Block 1B3 and Block 3 (FMP Block 2 for SLQ-32 (V)7). For FMP Block 2 systems for SLQ-32 (V)6 and (V)7, the production lead time is 17 months and these systems are then delivered to the system integrator, NSWCC Crane, 6 months (A-180 days) prior to the start of the installation availability for integration into a SLQ-32 (V)6 or (V)7 system. 135 days is required for integration and testing with SEWIP Blocks 1B2 and 1B3 for SLQ-32 (V)6 and SEWIP Blocks 1B2, 1B3 and 3 for SLQ-32(V7), 15 days for preparation for shipment and delivery to the shipyard 30 days prior to the start of the availability (A-30).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |         |         |                                                   |                |                  |                 |         |                                                                                       |         |                |          |
| Notes:<br><br>(1) Production Support provides for Government production oversight and original equipment manufacturer (OEM) support of production. This includes software, hardware problems, and integrated logistics support for production and fielding. Production support cost has increased from FY18 to FY19 due to additional Government oversight requirements and additional Government and OEM support for unplanned efforts including Environmental Qualification Test (EQT) fixes, retrofit of an upgraded Liquid Conditioning Unit (LCU), and next Generation VME replacement. These fixes and upgrades impact both new systems as well as previously fielding systems, resulting in an increase level of effort.<br><br>(2) Tech Refresh funding in FY19-FY23 will provide for the procurement and retrofit of an upgraded Liquid Cooling Unit (LCU), implement enhanced cybersecurity safeguards and upgrade to the Next Generation VME system replacement. Tech Refresh of the LCU will address reliability and support cost drivers of the current configuration. Enhanced cybersecurity safeguards are required for the AN/SLQ-32(V)6 system to continue to be part of the integrated combat system. The next Generation VME system replacement will update SEWIP Block 2 to VPX (also known a VITA 46) to correct VMEbus bandwidth limitations, which will address obsolescence and reliability issues affecting fielded systems.<br><br>(3) Engineering Change Proposal (ECP) funding addresses reliability, obsolescence, and other issues associated with production, and is estimated based on historical SEWIP Block 2 ECP expenditures. SEWIP Block 2 ECP funding supports the Non-Recurring Engineering for anticipated hardware and software combat system integration issues and Fleet reported trouble reports. FY19 ECP increases due to the incorporation of the cost of the Design Agent services contract. Design agent services in FY19 are necessary to address hardware configuration changes necessary to address and correct producibility, reliability and maintainability, as well as, Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues with the SEWIP Block 2 ES system and associated equipment. |                |         |         |                                                   |                |                  |                 |         |                                                                                       |         |                |          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                          | <b>Date:</b> February 2018                                                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>4 / TC059 - BLOCK 2 ELECTRONIC<br>SUPPORT (ES) SYSTEM |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                          | <b>MDAP/MAIS Code:</b>                                                                       |
| <p>(4) Procurement of SEWIP Block 2 Lite systems in support of USCG OPC Class ships has been moved into a P-40a exhibit (TC959) within this budget in accordance with OPNAVINST 4000.79A for Navy Type - Navy Owned material. The total SEWIP Block 2 quantities being procured is the same as PB18. As a result, FMP Block 2 for SLQ-32(V)6 increased by seven units due to the acceleration of the SLQ-32(V)6 installation schedule. FMP Block 2 for SLQ-32(V)7 decreased by six units due to the decision to install six systems as non-conjunctive. One shore site system was eliminated due to the adoption of MRTS for training.</p> <p>(5) Installation costs have been reduced to reflect the actual costs for SEWIP Block 2 installations to date.</p> <p>(6) Funding for Installation and Check Out (INCO) spares to support FY18-FY23 procured units is called out separately in the SEWIP Block 2 hardware line as 1.1.5.</p> <p>(7) SEWIP Block 2 H/W unit cost increase from FY18 to FY19 is due to increased Common Processing Solution (CPS) and Common Display Solution (CDS) price increases due to multiple contract modifications for obsolescence resolution and transitioning from the TI-12 configuration in FY18 to the TI-16 configurations in FY19.</p> <p>(8) The SEWIP Block 2 MRTS (shown on the P-40a exhibit TC960) eliminates the need for an SLQ-32(V)6 shore system (Block 1B3 and Block 2) at Corry Station which was planned for installation in FY19.</p> <p>(9) For FMP Block 1B3 systems, the production lead time is 15 months and these systems are then delivered to the system integrator, NSWC Crane, 6 months prior to the start of the installation availability (A-180 days) where integration, testing, and preparation for shipment is conducted. 135 days are required for integration and testing of the SEWIP Blocks 1B2, 1B3 and 2 into an SLQ-32(V)6 system, preparation for shipment (15 days) and delivery to the shipyard 30 days prior to the start of the availability (A-30). The four FY19 units installed in Q1FY22 are scheduled for delivery to the Government between 15 Mar 2021 and 3 May 2021. The integration start dates for these units are required to start no later than 15 Aug - 15 Sep 2021 in order to prepare the systems for installation.</p> |                                                          |                                                                                              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                              |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        | <b>Date:</b> February 2018                                                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                         |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                 |                                |                                |                                |                                                          |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                                           |                                |                                |  |
| <b>Models of Systems Affected:</b> TC059 SURFACE EW IMPROVEMENTS BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM |                                |                                |                                | <b>Modification Type:</b> SHIPALT/AIT                    |                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604757N |                                                                                           |                                |                                |  |
| <b>Financial Plan</b>                                                                                   | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                      | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                         | <b>FY 2023</b>                                                                            | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                      |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM                         |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| B Kits                                                                                                  |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| Recurring                                                                                               |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| 1.1.1) FMP BLOCK 2 for SLQ-32 (V)6 - NonOrganic                                                         | 35 / 370.909                   | 10 / 90.142                    | 9 / 81.239                     | 15 / 135.705                                             | - / -                          | 15 / 135.705                   | 14 / 126.882                   | 8 / 73.960                     | 4 / 37.724                             | 1 / 9.618                                                                                 | - / -                          | 96 / 926.179                   |  |
| 1.1.2) FMP BLOCK 2 for SLQ-32 (V)7 - NonOrganic                                                         | - / -                          | 1 / 9.014                      | 1 / 9.026                      | 1 / 9.047                                                | - / -                          | 1 / 9.047                      | 5 / 45.315                     | 9 / 83.205                     | 4 / 37.724                             | 1 / 9.618                                                                                 | 2 / 19.620                     | 24 / 222.569                   |  |
| 1.1.3) NON-FMP BLK2 SHORE SITE UNITS - NonOrganic                                                       | 7 / 53.529                     | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                                     | - / -                          | 7 / 53.529                     |  |
| 1.1.4) BLK2 GFE FOR BLK3 OEM - NonOrganic                                                               | 1 / 11.556                     | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                                     | - / -                          | 1 / 11.556                     |  |
| 1.1.5) INCO Spares - Organic                                                                            | - / -                          | - / -                          | - / 3.064                      | - / 4.752                                                | - / -                          | - / 4.752                      | - / 3.690                      | - / 3.807                      | - / 3.979                              | - / 0.569                                                                                 | - / 6.162                      | - / 26.023                     |  |
| <b>Subtotal: Recurring</b>                                                                              | <b>- / 435.994</b>             | <b>- / 99.156</b>              | <b>- / 93.329</b>              | <b>- / 149.504</b>                                       | <b>- / -</b>                   | <b>- / 149.504</b>             | <b>- / 175.887</b>             | <b>- / 160.972</b>             | <b>- / 79.427</b>                      | <b>- / 19.805</b>                                                                         | <b>- / 25.782</b>              | <b>- / 1,239.856</b>           |  |
| <b>Subtotal: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM</b>                                         | <b>43 / 435.994</b>            | <b>11 / 99.156</b>             | <b>10 / 93.329</b>             | <b>16 / 149.504</b>                                      | <b>- / -</b>                   | <b>16 / 149.504</b>            | <b>19 / 175.887</b>            | <b>17 / 160.972</b>            | <b>8 / 79.427</b>                      | <b>2 / 19.805</b>                                                                         | <b>2 / 25.782</b>              | <b>128 / 1,239.856</b>         |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                    | <b>- / 435.994</b>             | <b>- / 99.156</b>              | <b>- / 93.329</b>              | <b>- / 149.504</b>                                       | <b>- / -</b>                   | <b>- / 149.504</b>             | <b>- / 175.887</b>             | <b>- / 160.972</b>             | <b>- / 79.427</b>                      | <b>- / 19.805</b>                                                                         | <b>- / 25.782</b>              | <b>- / 1,239.856</b>           |  |
| <b>Support (All Modification Items)</b>                                                                 |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| 2.1) Production Support                                                                                 | - / 32.561                     | - / 10.269                     | - / 6.686                      | - / 9.827                                                | - / -                          | - / 9.827                      | - / 6.576                      | - / 5.147                      | - / 4.613                              | - / 2.245                                                                                 | - / 7.919                      | - / 85.843                     |  |
| 2.2) Tech Refresh                                                                                       | - / -                          | - / -                          | - / -                          | - / 2.500                                                | - / -                          | - / 2.500                      | - / 2.600                      | - / 6.975                      | - / 2.500                              | - / 0.120                                                                                 | - / 64.366                     | - / 79.061                     |  |
| 2.3) Engineering Change Proposals (ECPs)                                                                | - / 10.971                     | - / 1.994                      | - / 3.007                      | - / 6.968                                                | - / -                          | - / 6.968                      | - / 6.998                      | - / 20.763                     | - / 7.267                              | - / 1.789                                                                                 | - / 4.447                      | - / 64.204                     |  |
| <b>Subtotal: Support</b>                                                                                | <b>- / 43.532</b>              | <b>- / 12.263</b>              | <b>- / 9.693</b>               | <b>- / 19.295</b>                                        | <b>- / -</b>                   | <b>- / 19.295</b>              | <b>- / 16.174</b>              | <b>- / 32.885</b>              | <b>- / 14.380</b>                      | <b>- / 4.154</b>                                                                          | <b>- / 76.732</b>              | <b>- / 229.108</b>             |  |
| <b>Installation</b>                                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM                         | - / 48.165                     | - / 38.597                     | - / 28.412                     | - / 59.906                                               | - / 0.000                      | - / 59.906                     | - / 45.588                     | - / 73.087                     | - / 70.419                             | - / 64.629                                                                                | - / 61.364                     | - / 490.167                    |  |
| <b>Subtotal: Installation</b>                                                                           | <b>- / 48.165</b>              | <b>- / 38.597</b>              | <b>- / 28.412</b>              | <b>- / 59.906</b>                                        | <b>- / -</b>                   | <b>- / 59.906</b>              | <b>- / 45.588</b>              | <b>- / 73.087</b>              | <b>- / 70.419</b>                      | <b>- / 64.629</b>                                                                         | <b>- / 61.364</b>              | <b>- / 490.167</b>             |  |
| <b>Total</b>                                                                                            |                                |                                |                                |                                                          |                                |                                |                                |                                |                                        |                                                                                           |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                | <b>527.691</b>                 | <b>150.016</b>                 | <b>131.434</b>                 | <b>228.705</b>                                           | <b>0.000</b>                   | <b>228.705</b>                 | <b>237.649</b>                 | <b>266.944</b>                 | <b>164.226</b>                         | <b>88.588</b>                                                                             | <b>163.878</b>                 | <b>1,959.131</b>               |  |

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|-----------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------|-----------|--------------------------------|---------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                    |            |                                |           |                                |           |                                |           |                                |           |                                                          |           | <b>Date:</b> February 2018     |                                             |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4               |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |           |                                |                                             |                                |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                       |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             | <b>MDAP/MAIS Code:</b>         |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM               |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Lockheed Martin                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                | Manufacturer Location: Syracuse, NY         |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 1                                                |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                | Production Leadtime <i>(in Months)</i> : 17 |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                  |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                           |           |                                |                                             | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                |            | Mar 2017                       |           |                                |           | Mar 2018                       |           |                                |           | Mar 2019                                                 |           |                                |                                             | Mar 2020                       |           |                                |           | Mar 2021                       |           |                                                                                           |           | Mar 2022                       |           |                                |           | Mar 2023       |           |           |           |           |            |
| Delivery Dates                                                                                |            | Aug 2018                       |           |                                |           | Aug 2019                       |           |                                |           | Aug 2020                                                 |           |                                |                                             | Aug 2021                       |           |                                |           | Aug 2022                       |           |                                                                                           |           | Aug 2023                       |           |                                |           | Aug 2023       |           |           |           |           |            |
| <b>Installation Information</b>                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> SHIPALT/AIT:: Installation Name: FMP BLOCK 2 for SLQ-32 (V)6 |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                      |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                       |           | <b>FY 2019 Total</b>           |                                             | <b>FY 2020</b>                 |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                            |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                               |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                           |           | Qty (Each) / Total Cost (\$ M) |                                             | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                   |            | 9 / 42.754                     |           | 13 / 38.262                    |           | 6 / 19.171                     |           | 7 / 22.072                     |           | 0 / 0.000                                                |           | 7 / 22.072                     |                                             | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 35 / 122.259                   |           |                |           |           |           |           |            |
| FY 2017                                                                                       |            | - / -                          |           | 0 / 0.335                      |           | 0 / 4.014                      |           | 7 / 22.865                     |           | 0 / 0.000                                                |           | 7 / 22.865                     |                                             | 3 / 9.572                      |           | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 10 / 36.786                    |           |                |           |           |           |           |            |
| FY 2018                                                                                       |            | - / -                          |           | - / -                          |           | 0 / 2.913                      |           | 0 / 4.743                      |           | 0 / 0.000                                                |           | 0 / 4.743                      |                                             | 4 / 14.101                     |           | 5 / 16.146                     |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 9 / 37.903                     |           |                |           |           |           |           |            |
| FY 2019                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 8.109                      |           | 0 / 0.000                                                |           | 0 / 8.109                      |                                             | 0 / 5.927                      |           | 11 / 36.604                    |           | 4 / 13.072                     |           | - / -                                                                                     |           | 0 / 0.000                      |           | 15 / 63.712                    |           |                |           |           |           |           |            |
| FY 2020                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | 0 / 8.592                      |           | 0 / 4.759                      |           | 12 / 39.764                    |           | 2 / 6.614                                                                                 |           | 0 / 0.000                      |           | 14 / 59.729                    |           |                |           |           |           |           |            |
| FY 2021                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | 0 / 6.039                      |           | 0 / 2.192                      |           | 8 / 26.457                                                                                |           | 0 / 0.000                      |           | 8 / 34.688                     |           |                |           |           |           |           |            |
| FY 2022                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | 0 / 3.056                      |           | 0 / 1.109                                                                                 |           | 4 / 13.387                     |           | 4 / 17.552                     |           |                |           |           |           |           |            |
| FY 2023                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | 0 / 0.764                      |           | 0 / 0.227                                                                                 |           | 1 / 3.346                      |           | 1 / 4.337                      |           |                |           |           |           |           |            |
| To Complete                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                         |            | 9 / 42.754                     |           | 13 / 38.597                    |           | 6 / 26.098                     |           | 14 / 57.789                    |           | 0 / 0.000                                                |           | 14 / 57.789                    |                                             | 7 / 38.192                     |           | 16 / 63.548                    |           | 16 / 58.848                    |           | 10 / 34.407                                                                               |           | 5 / 16.733                     |           | 96 / 376.966                   |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |                                             |                                |           |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                           |           |                                |                                             | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                               |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b>                                   | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                 | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                            | 9          | 3                              | -         | 2                              | 8         | -                              | -         | -                              | 6         | 2                                                        | 3         | 2                              | 7                                           | 3                              | 4         | -                              | -         | 5                              | 5         | 5                                                                                         | 1         | 4                              | 1         | 3                              | 8         | 2              | 3         | 1         | 4         | 5         | 96         |
| Out                                                                                           | 7          | 2                              | 3         | -                              | 2         | 8                              | -         | -                              | -         | 6                                                        | 2         | 3                              | 2                                           | 7                              | 3         | 4                              | -         | -                              | 5         | 5                                                                                         | 5         | 1                              | 4         | 1                              | 3         | 8              | 2         | 3         | 1         | 9         | 96         |

**UNCLASSIFIED**

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|---------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                          | <b>Date:</b> February 2018                                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: FMP BLOCK 2 for SLQ-32 (V)7

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | 0 / 0.728                      | 0 / 0.264                      | 0 / 0.000                      | 0 / 0.264                      | 1 / 3.191                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 4.183                      |
| FY 2018           | - / -                          | - / -                          | 0 / 0.728                      | 0 / 0.264                      | 0 / 0.000                      | 0 / 0.264                      | 1 / 3.191                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 4.183                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | 0 / 0.731                      | 0 / 0.000                      | 0 / 0.731                      | 0 / 0.268                      | 1 / 3.229                      | - / -                          | - / -                          | 0 / 0.000                      | 1 / 4.228                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.746                      | 0 / 3.291                      | 1 / 4.363                      | 4 / 13.229                     | 0 / 0.000                      | 5 / 21.629                     |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 3.019                      | 0 / 4.916                      | 4 / 14.615                     | 5 / 18.268                     | 9 / 40.818                     |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 2.292                      | 0 / 1.605                      | 4 / 13.708                     | 4 / 17.605                     |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.773                      | 1 / 3.667                      | 1 / 4.440                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 8.988                      | 2 / 8.988                      |
| Total             | - / -                          | - / -                          | 0 / 1.456                      | 0 / 1.259                      | 0 / 0.000                      | 0 / 1.259                      | 2 / 7.396                      | 1 / 9.539                      | 1 / 11.571                     | 8 / 30.222                     | 12 / 44.631                    | 24 / 106.074                   |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 1  | 1  | -  | 1       | -  | -  | -  | -       | 1  | -  | -  | 4       | 1  | 1  | 2  | 12 | 24  |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 1  | 1  | -       | 1  | -  | -  | -       | -  | 1  | -  | -       | 4  | 1  | 1  | 14 | 24  |

**Method of Implementation:** [none specified]:: Installation Name: NON-FMP BLK2 SHORE SITE UNITS

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 5 / 4.553                      | - / -                          | 1 / 0.858                      | 1 / 0.858                      | 0 / 0.000                      | 1 / 0.858                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 7 / 6.269                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |

## UNCLASSIFIED

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                          | <b>Date:</b> February 2018                                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                                          | <b>MDAP/MAIS Code:</b>                                                                    |

**Modification Item 1 of 1:** TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

## Installation Information

**Method of Implementation:** [none specified]:: Installation Name: NON-FMP BLK2 SHORE SITE UNITS

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 5 / 4.553                      | - / -                          | 1 / 0.858                      | 1 / 0.858                      | 0 / 0.000                      | 1 / 0.858                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 7 / 6.269                      |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 5   | -       | -  | -  | -  | -       | -  | -  | 1  | 1       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 7   |
| Out | 5   | -       | -  | -  | -  | -       | -  | -  | -  | 1       | 1  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 7   |

**Method of Implementation:** [none specified]:: Installation Name: BLK2 GFE FOR BLK3 OEM

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 1 / 0.858                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.858                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 1 / 0.858                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.858                      |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |                                                          | <b>Date:</b> February 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|----|-----|--|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4              | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>4 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |                                                          | <b>MDAP/MAIS Code:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Modification Item 1 of 1:</b> TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM              |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Installation Information</b>                                                              |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: BLK2 GFE FOR BLK3 OEM |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Installation Schedule</b>                                                                 |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                                              | <b>PYS</b>                                               | <table><tr><th colspan="4">FY 2017</th><th colspan="4">FY 2018</th><th colspan="4">FY 2019</th><th colspan="4">FY 2020</th><th colspan="4">FY 2021</th><th colspan="4">FY 2022</th><th colspan="4">FY 2023</th><th rowspan="2">TC</th><th rowspan="2">Tot</th></tr><tr><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr><tr><td>In</td><td>1</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td></tr><tr><td>Out</td><td>1</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td></tr></table> | FY 2017 |         |    |    | FY 2018 |         |    |    | FY 2019 |         |    |    | FY 2020 |         |    |    | FY 2021 |         |    |    | FY 2022 |         |    |    | FY 2023 |    |     |  | TC | Tot | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | In | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | Out | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| FY 2017                                                                                      |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         | FY 2018 |    |    |         | FY 2019 |    |    |         | FY 2020 |    |    |         | FY 2021 |    |    |         | FY 2022 |    |    |         | FY 2023 |    |    |         | TC | Tot |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Q1                                                                                           | Q2                                                       | Q3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| In                                                                                           | 1                                                        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -  | 1   |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Out                                                                                          | 1                                                        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -  | 1   |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                    |             |         |         |                                                   |             |               |                 |         | Date: February 2018                                                                  |         |             |           |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 4                                                               |             |         |         | P-1 Line Item Number / Title:<br>2312 / AN/SLQ-32 |             |               |                 |         | Modification Number / Title:<br>5 / TC060 - BLOCK 3 ELECTRONIC<br>ATTACK (EA) SYSTEM |         |             |           |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |                                                   |             |               | MDAP/MAIS Code: |         |                                                                                      |         |             |           |
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                      | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022                                                                              | FY 2023 | To Complete | Total     |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -                                                 | -           | -             | -               | -       | -                                                                                    | -       | -           | -         |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 28.909  | 71.509  | 149.004                                           | 0.000       | 149.004       | 281.734         | 379.793 | 297.758                                                                              | 357.762 | 980.815     | 2,547.284 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -                                                 | -           | -             | -               | -       | -                                                                                    | -       | -           | -         |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 28.909  | 71.509  | 149.004                                           | 0.000       | 149.004       | 281.734         | 379.793 | 297.758                                                                              | 357.762 | 980.815     | 2,547.284 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -                                                 | -           | -             | -               | -       | -                                                                                    | -       | -           | -         |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 28.909  | 71.509  | 149.004                                           | 0.000       | 149.004       | 281.734         | 379.793 | 297.758                                                                              | 357.762 | 980.815     | 2,547.284 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |                                                   |             |               |                 |         |                                                                                      |         |             |           |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -                                                 | -           | -             | -               | -       | -                                                                                    | -       | -           | -         |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -                                                 | -           | -             | -               | -       | -                                                                                    | -       | -           | -         |

Description:

Block 3 will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide a common EA capability to surface combatants (CVN, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms. The program builds on the EW Electronic Support (ES) capability delivered by Blocks 1 and 2. Development Status/Major Milestones are: Long Lead Material (LLM) was procured Q4 FY17, Milestone C Low Rate Initial Production (LRIP) Q4 FY18, IOT&E Q1 FY21, FRP is Q2 FY22. The SEWIP Block 1B3, Block 2 and Block 3 units compose the AN/SLQ-32(V)7 system. This may be accomplished as a conjunctive installation with all SEWIP components installed at the same time or as a non-conjunctive installation by installing the SEWIP Block 3 on a ship with SEWIP Block 1B3 and 2 previously installed.

Notes:

(1) Production Support provides for Government oversight of production, Government and original equipment manufacturer (OEM) support of production related software and hardware problems, and engineering as well as integrated logistics support efforts in support of production and fielding. Funding for installation and Check Out (INCO) spares to support procured units previously included as part of production support has been called out separately in the SEWIP Block 3 hardware line as 1.1.3.

(2) INCO spares requirements are based on the updated Program Support Data sheets, SEWIP Block 3 hardware reliability projections, and the level at which SEWIP INCO spares requirements have been funded via the OPN 9020 budget. The increase in SEWIP Block 3 INCO requirements from FY18 to FY19 is due to the increase in the number of supported systems from two (2) in FY18 to four (4) in FY19 based on current hardware reliability projections.

(3) SEWIP Block 3 Engineering Change Proposal (ECP) funding amounts are estimated based on the current maturity of the design and the anticipated changes during production. ECP costs are higher in FY19-23 due to the inclusion of design agent services requirements to address hardware configuration changes necessary for installation on CVN and LHD class ships.

(4) The total lead time for production of FY17 units is 22 months, due to the procurement of long lead time materials, while the production lead time for FY18-FY21 units is 18 months.

(5) SEWIP Block 3 installation costs include the procurement of four (4) quad plates per shipset to mount the SEWIP Block 3 antennas. The installation costs also include the procurement of High Efficiency, Super Capacity (HES-C) chiller unit upgrades required for certain DDG, LHD, and CVN ships (18 of the 49 SEWIP Block 3 installations). The quad plates and HES-C chiller unit upgrades are required two (2) years ahead of shipboard installation to support integration at NSWC Crane.

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                          | <b>Date:</b> February 2018                                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>5 / TC060 - BLOCK 3 ELECTRONIC<br>ATTACK (EA) SYSTEM |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                          | <b>MDAP/MAIS Code:</b>                                                                      |
| <p>(6) The requirement for SEWIP Block 3 Large Radar Cross Section (LRCS) systems have been eliminated since PB18 as it has been determined that the SRCS system can meet the SEWIP Block 3 operational requirements. All units procured will be SEWIP Block 3 Small Radar Cross Section (SRCS) systems.</p> <p>(7) The current SEWIP Block 3 development contract was awarded in FY15 and includes fixed price production options for FY17 and FY18 which were bid in a competitive environment prior to the start of system development. The program will procure FY17 and FY18 units at these contract prices. A new competitive contract will be awarded for FY19-FY23 production requirements. The estimated FY19-FY23 Block 3 unit costs are based on actuals from the current SEWIP Block 3 development contract which reflect the current bill of material and labor costs and are higher than the production unit costs included in the current competitively awarded contract at award.</p> <p>(8) The SEWIP Block 3 MRTS (P-40A exhibit TC960) eliminates the need for an SLQ-32V(7) shore system at Corry Station which was planned for an FY19 installation.</p> <p>(9) For FY18 and forward, the FMP Block 3 systems production lead time is 18 months, and these systems are then delivered to the system integrator, NSWC Crane, 6 months prior to the start of the installation availability (A-180 days) where integration, testing, and preparation for shipment is conducted. 135 days are required for integration and testing of the SEWIP Blocks 1B2, 1B3, 2 and 3 into an SLQ-32(V)7 system, preparation for shipment (15 days) and delivery to the shipyard 30 days prior to the start of the availability (A-30).</p> |                                                          |                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                          |                                                                                             |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                   |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   | <b>Date:</b> February 2018                                                                  |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                              |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                   |                                   |                                   |                                        |                                   | <b>Modification Number / Title:</b><br>5 / TC060 - BLOCK 3 ELECTRONIC<br>ATTACK (EA) SYSTEM |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                      |                                   |                                   |                                   |                                                          |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>                 |                                   |                                                                                             |                                   |                                   |  |
| <b>Models of Systems Affected:</b> TC060 SURFACE EW<br>IMPROVEMENTS BLOCK 3 ELECTRONIC ATTACK<br>(EA) SYSTEM |                                   |                                   |                                   | <b>Modification Type:</b> SHIPALT/AIT                    |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0604757N |                                   |                                                                                             |                                   |                                   |  |
| <b>Financial Plan</b>                                                                                        | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019<br/>Base</b>                                  | <b>FY 2019<br/>OCO</b>            | <b>FY 2019<br/>Total</b>          | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                              | <b>To<br/>Complete</b>            | <b>Total</b>                      |  |
|                                                                                                              | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                        | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                           | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                           |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> TC060 - BLOCK 3<br>ELECTRONIC ATTACK (EA) SYSTEM                            |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| B Kits                                                                                                       |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| Recurring                                                                                                    |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| 1.1.1) FMP BLOCK 3 (SMALL RCS) for SLQ-32(V)7 -<br>NonOrganic                                                | - / -                             | 1 / 25.379                        | 1 / 17.479                        | 4 / 90.700                                               | - / -                             | 4 / 90.700                        | 8 / 185.024                       | 11 / 259.501                           | 7 / 168.434                       | 7 / 171.808                                                                                 | 9 / 244.640                       | 48 / 1,162.965                    |  |
| 1.1.2) NON-FMP BLK3 SHORE SITE UNITS -<br>NonOrganic                                                         | - / -                             | - / -                             | 1 / 17.479                        | - / -                                                    | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                                                       | - / -                             | 1 / 17.479                        |  |
| 1.1.3) Installation and Check Out (INCO) Spares -<br>Organic                                                 | - / -                             | - / -                             | - / 10.234                        | - / 13.830                                               | - / -                             | - / 13.830                        | - / 15.858                        | - / 6.886                              | - / 7.268                         | - / 5.430                                                                                   | - / 11.290                        | - / 70.796                        |  |
| <b>Subtotal: Recurring</b>                                                                                   | - / 0.000                         | - / 25.379                        | - / 45.192                        | - / 104.530                                              | - / -                             | - / 104.530                       | - / 200.882                       | - / 266.387                            | - / 175.702                       | - / 177.238                                                                                 | - / 255.930                       | - / 1,251.240                     |  |
| <b>Subtotal: TC060 - BLOCK 3 ELECTRONIC ATTACK<br/>(EA) SYSTEM</b>                                           | - / -                             | 1 / 25.379                        | 2 / 45.192                        | 4 / 104.530                                              | - / -                             | 4 / 104.530                       | 8 / 200.882                       | 11 / 266.387                           | 7 / 175.702                       | 7 / 177.238                                                                                 | 9 / 255.930                       | 49 / 1,251.240                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                         | - / 0.000                         | - / 25.379                        | - / 45.192                        | - / 104.530                                              | - / -                             | - / 104.530                       | - / 200.882                       | - / 266.387                            | - / 175.702                       | - / 177.238                                                                                 | - / 255.930                       | - / 1,251.240                     |  |
| <b>Support (All Modification Items)</b>                                                                      |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| 2.1) Production Support                                                                                      | - / -                             | - / 3.530                         | - / 9.989                         | - / 11.630                                               | - / -                             | - / 11.630                        | - / 8.549                         | - / 6.580                              | - / 9.496                         | - / 6.404                                                                                   | - / 52.310                        | - / 108.488                       |  |
| 2.2) Engineering Change Proposals (ECP)                                                                      | - / -                             | - / -                             | - / 2.420                         | - / 4.592                                                | - / -                             | - / 4.592                         | - / 13.840                        | - / 20.090                             | - / 12.260                        | - / 8.363                                                                                   | - / 9.190                         | - / 70.755                        |  |
| <b>Subtotal: Support</b>                                                                                     | - / 0.000                         | - / 3.530                         | - / 12.409                        | - / 16.222                                               | - / -                             | - / 16.222                        | - / 22.389                        | - / 26.670                             | - / 21.756                        | - / 14.767                                                                                  | - / 61.500                        | - / 179.243                       |  |
| <b>Installation</b>                                                                                          |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> TC060 - BLOCK 3<br>ELECTRONIC ATTACK (EA) SYSTEM                            | - / 0.000                         | - / 0.000                         | - / 13.908                        | - / 28.252                                               | - / 0.000                         | - / 28.252                        | - / 58.463                        | - / 86.736                             | - / 100.300                       | - / 165.757                                                                                 | - / 663.385                       | - / 1,116.801                     |  |
| <b>Subtotal: Installation</b>                                                                                | - / 0.000                         | - / -                             | - / 13.908                        | - / 28.252                                               | - / -                             | - / 28.252                        | - / 58.463                        | - / 86.736                             | - / 100.300                       | - / 165.757                                                                                 | - / 663.385                       | - / 1,116.801                     |  |
| <b>Total</b>                                                                                                 |                                   |                                   |                                   |                                                          |                                   |                                   |                                   |                                        |                                   |                                                                                             |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                     | <b>0.000</b>                      | <b>28.909</b>                     | <b>71.509</b>                     | <b>149.004</b>                                           | <b>0.000</b>                      | <b>149.004</b>                    | <b>281.734</b>                    | <b>379.793</b>                         | <b>297.758</b>                    | <b>357.762</b>                                                                              | <b>980.815</b>                    | <b>2,547.284</b>                  |  |

**UNCLASSIFIED**

|                                                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
|---------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|----------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------------|-----------|--------------------------------|----------------|--------------------------------|------------------------------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                    |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                               |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |           |                                |                |                                      |           |                                |                |                                | <b>Modification Number / Title:</b><br>5 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                | <b>MDAP/MAIS Code:</b>               |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM                                |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: NORTHROP GRUMMAN                                                                           |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                | Manufacturer Location: BALTIMORE, MD |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 0                                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                | Production Leadtime (in Months): 18  |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                  |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                           |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                                          |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                |            | Aug 2017                       |                                |           |                                | Sep 2018       |                                |           |                                | Mar 2019                                                 |                                |           |                                | Mar 2020       |                                      |           |                                | Mar 2021       |                                |                                                                                          |                                | Mar 2022       |                                |           |           | Mar 2023       |           |           |           |           |            |
| Delivery Dates                                                                                                |            | Jun 2019                       |                                |           |                                | Mar 2020       |                                |           |                                | Sep 2020                                                 |                                |           |                                | Sep 2021       |                                      |           |                                | Sep 2022       |                                |                                                                                          |                                | Sep 2023       |                                |           |           | Sep 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: FMP BLOCK 3 (SMALL RCS) for SLQ-32(V)7 |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                      |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                          | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                       |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                                          | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                                               |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                          | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)       |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                                          | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                   |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                          | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                                                       |            | - / -                          | - / -                          |           | 0 / 6.954                      |                | 0 / 2.424                      |           | 0 / 0.000                      |                                                          | 0 / 2.424                      |           | 1 / 14.269                     |                | - / -                                |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 1 / 23.647                     |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                       |            | - / -                          | - / -                          |           | 0 / 6.954                      |                | 0 / 2.424                      |           | 0 / 0.000                      |                                                          | 0 / 2.424                      |           | 1 / 14.269                     |                | - / -                                |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 1 / 23.647                     |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | 0 / 23.404                     |           | 0 / 0.000                      |                                                          | 0 / 23.404                     |           | 0 / 9.686                      |                | 4 / 55.714                           |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 4 / 88.804                     |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                          | - / -                          |           | 0 / 16.558                     |                | 0 / 19.843                           |           | 3 / 53.556                     |                | 5 / 68.666                     |                                                                                          | 0 / 0.000                      |                | 8 / 158.623                    |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                          | - / -                          |           | - / -                          |                | 0 / 11.179                           |           | 0 / 35.441                     |                | 3 / 70.583                     |                                                                                          | 8 / 127.710                    |                | 11 / 244.913                   |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                          | - / -                          |           | - / -                          |                | - / -                                |           | 0 / 11.303                     |                | 0 / 19.293                     |                                                                                          | 7 / 128.016                    |                | 7 / 158.612                    |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                       |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                          | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | 0 / 7.215                      |                                                                                          | 7 / 170.135                    |                | 7 / 177.350                    |           |           |                |           |           |           |           |            |
| To Complete                                                                                                   |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                          | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                                          | 9 / 237.524                    |                | 9 / 237.524                    |           |           |                |           |           |           |           |            |
| Total                                                                                                         |            | - / -                          | - / -                          |           | 0 / 13.908                     |                | 0 / 28.252                     |           | 0 / 0.000                      |                                                          | 0 / 28.252                     |           | 2 / 54.782                     |                | 4 / 86.736                           |           | 3 / 100.300                    |                | 8 / 165.757                    |                                                                                          | 31 / 663.385                   |                | 48 / 1,113.120                 |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                           |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                                          |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                               |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                            | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                                                | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                            | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                        | -                              | -         | -                              | -              | 1                                    | 1         | -                              | 4              | -                              | -                                                                                        | -                              | -              | 1                              | -         | 2         | 5              | -         | 1         | 2         | 31        | 48         |
| Out                                                                                                           | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                        | -                              | -         | -                              | -              | -                                    | 1         | 1                              | -              | 4                              | -                                                                                        | -                              | -              | -                              | 1         | -         | 2              | 5         | -         | 1         | 33        | 48         |

**UNCLASSIFIED**

|                                                                                 |                                                          |                                                                                             |
|---------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                          | <b>Date:</b> February 2018                                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4 | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 | <b>Modification Number / Title:</b><br>5 / TC060 - BLOCK 3 ELECTRONIC<br>ATTACK (EA) SYSTEM |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

**Installation Information**

**Method of Implementation:** AIT:: Installation Name: NON-FMP BLK3 SHORE SITE UNITS

| Installation Cost | Prior Years                       | FY 2017                           | FY 2018                           | FY 2019<br>Base                   | FY 2019<br>OCO                    | FY 2019<br>Total                  | FY 2020                           | FY 2021                           | FY 2022                           | FY 2023                           | To<br>Complete                    | Total                             |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|                   | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |
| Prior Years       | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| FY 2017           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| FY 2018           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | 1 / 3.681                         | - / -                             | - / -                             | - / -                             | 0 / 0.000                         | 1 / 3.681                         |
| FY 2019           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| FY 2020           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| FY 2021           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| FY 2022           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| FY 2023           | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| To Complete       | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             |
| Total             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | 1 / 3.681                         | - / -                             | - / -                             | - / -                             | 0 / 0.000                         | 1 / 3.681                         |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 1       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 1   |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 1  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 1   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                          |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                    |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4                                                                                                                                                                                                                                                                                                                                  |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>6 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                                                          |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                               |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                      | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                        | -                  | -                    | -                      | -              | -              | -                                                                                             | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                               | 79.320             | 43.246         | 7.929          | 0.000                                                    | 0.000              | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                         | 0.000              | 130.495        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                        | -                  | -                    | -                      | -              | -              | -                                                                                             | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                  | 79.320             | 43.246         | 7.929          | 0.000                                                    | 0.000              | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                         | 0.000              | 130.495        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                        | -                  | -                    | -                      | -              | -              | -                                                                                             | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                      | <b>79.320</b>      | <b>43.246</b>  | <b>7.929</b>   | <b>0.000</b>                                             | <b>0.000</b>       | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                  | <b>0.000</b>       | <b>130.495</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                    |                    |                |                |                                                          |                    |                      |                        |                |                |                                                                                               |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                        | -                  | -                    | -                      | -              | -              | -                                                                                             | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                        | -                  | -                    | -                      | -              | -              | -                                                                                             | -                  | -              |
| <b>Description:</b><br>Block 3T (also referred to as nomenclature AN/SLQ-59) will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ32(V) system to keep pace with the threat. Block 3T provides initial, limited interim capability of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) system to meet an urgent operational needs statement. |                    |                |                |                                                          |                    |                      |                        |                |                |                                                                                               |                    |                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                            |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                    |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4       |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>6 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                               |                                |                                |                                |                                                          |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                               |                                |                                |  |
| <b>Models of Systems Affected:</b> TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System |                                |                                |                                | <b>Modification Type:</b> SHIPALT/AIT                    |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604757N |                                |                                                                                               |                                |                                |  |
| <b>Financial Plan</b>                                                                 | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                      | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                    |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System   |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| B Kits                                                                                |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| Recurring                                                                             |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| 1.1.1) FMP Ship Units - NonOrganic                                                    | 10 / 49.752                    | 5 / 25.940                     | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / -                          | 15 / 75.692                    |  |
| Subtotal: Recurring                                                                   | - / 49.752                     | - / 25.940                     | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / 0.000                      | - / 75.692                     |  |
| Subtotal: TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System                          | 10 / 49.752                    | 5 / 25.940                     | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / -                          | 15 / 75.692                    |  |
| Subtotal: Procurement, All Modification Items                                         | - / 49.752                     | - / 25.940                     | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / 0.000                      | - / 75.692                     |  |
| <b>Support (All Modification Items)</b>                                               |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| 2.1) Production Support                                                               | - / 1.370                      | - / 2.100                      | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / -                          | - / 3.470                      |  |
| Subtotal: Support                                                                     | - / 1.370                      | - / 2.100                      | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / 0.000                      | - / 3.470                      |  |
| <b>Installation</b>                                                                   |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| <b>Modification Item 1 of 1:</b> TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System   | - / 28.198                     | - / 15.206                     | - / 7.929                      | - / 0.000                                                | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                     | - / 0.000                      | - / 51.333                     |  |
| Subtotal: Installation                                                                | - / 28.198                     | - / 15.206                     | - / 7.929                      | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                         | - / 0.000                      | - / 51.333                     |  |
| <b>Total</b>                                                                          |                                |                                |                                |                                                          |                                |                                |                                |                                        |                                |                                                                                               |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                              | <b>79.320</b>                  | <b>43.246</b>                  | <b>7.929</b>                   | <b>0.000</b>                                             | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                                  | <b>0.000</b>                   | <b>130.495</b>                 |  |



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|---------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                            |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                               |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 4       |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2312 / AN/SLQ-32 |           |                                |           |                                |                                      |                                |           |                                |           | <b>Modification Number / Title:</b><br>6 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                               |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                | <b>MDAP/MAIS Code:</b>               |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System   |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Exelis                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                | Manufacturer Location: Boalsburg, PA |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 0                                                |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                | Production Leadtime (in Months): 6   |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                          |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                           |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                        |            | Apr 2017                       |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                        |            | Sep 2017                       |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: FMP Ship Units |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                              |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                       |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                      | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                       |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                           |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                           |            | 6 / 27.960                     |           | 4 / 8.731                      |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 10 / 36.691    |           |           |           |           |            |
| FY 2017                                                                               |            | 0 / 0.238                      |           | 2 / 6.475                      |           | 3 / 7.929                      |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 5 / 14.642     |           |           |           |           |            |
| FY 2018                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                 |            | 6 / 28.198                     |           | 6 / 15.206                     |           | 3 / 7.929                      |           | - / -                          |           | - / -                                                    |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 15 / 51.333    |           |           |           |           |            |
| <b>Installation Schedule</b>                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                          |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                       | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                           |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                       |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                     | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                    | 6          | 2                              | 2         | -                              | 2         | 1                              | 1         | 1                              | -         | -                                                        | -         | -                              | -         | -                              | -                                    | -                              | -         | -                              | -         | -                                                                                             | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 15         |
| Out                                                                                   | 3          | 3                              | 2         | 2                              | -         | 2                              | 1         | 1                              | 1         | -                                                        | -         | -                              | -         | -                              | -                                    | -                              | -         | -                              | -         | -                                                                                             | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 15         |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |                                        |              |             |               |                                                              |                                     | Date: February 2018 |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |               | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                                     |                     |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         | Program Elements for Code B Items: N/A |              |             |               |                                                              | Other Related Program Elements: N/A |                     |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020                                                      | FY 2021                             | FY 2022             | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -             | -                                                            | -                                   | -                   | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 999.873     | 169.021 | 187.007                                | 220.883      | 0.000       | 220.883       | 225.348                                                      | 263.170                             | 288.949             | 299.719 | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -                                      | -            | -           | -             | -                                                            | -                                   | -                   | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 999.873     | 169.021 | 187.007                                | 220.883      | 0.000       | 220.883       | 225.348                                                      | 263.170                             | 288.949             | 299.719 | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -                                      | -            | -           | -             | -                                                            | -                                   | -                   | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 999.873     | 169.021 | 187.007                                | 220.883      | 0.000       | 220.883       | 225.348                                                      | 263.170                             | 288.949             | 299.719 | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -           | 1.375   | 6.513                                  | 4.978        | -           | 4.978         | 5.868                                                        | 5.639                               | 4.065               | 2.999   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -             | -                                                            | -                                   | -                   | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -           | -       | -                                      | -            | -           | -             | -                                                            | -                                   | -                   | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| The FY19 funding request was reduced by \$2.722M to account for the availability of prior year execution balances.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| [P5 / 1U013 SSEE Increment E ECP]: Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and unsupportable equipment for the Ships Signal Exploitation Equipment (SSEE) Increment E program and incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of Signals of Interest (SOI) and Electronic Warfare (EW). These changes allow for a common logistic support baseline and provide the hardware and software to incorporate P3I/new COTS base technologies. Specifically, this funds field change kits/ECPs that may also include all or some of the following upgrades; Tapered Slot Antennas (TSA), Hostile Force Integration Targeting Subsystems (HITS) hosted on Digital Receiver Technology (DRT), Radio Frequency Distribution Unit (RFDU) Backfits, Digital Tuners, Global Positioning System (GPS) Selective Availability Anti-Spoofing Modules (SAASM), Medusa, various antenna types(including Red Falcon), various hardware (to include blade servers) and software upgrades, and equipment to provide Information Operation (IO)/EW acquisition capabilities and localization of modern threat communications and SOI.                                                                                                                                                                   |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| [P5 / 1U016 Spectral]: The Spectral Program is an incremental acquisition, Government Off-The-Shelf/Commercial Off-The-Shelf (GOTS/COTS) program that provides cryptologic signals exploitation capabilities designed to meet the requirements for shipboard cryptologic operations within the Ship's Signal Exploitation Space (SSES) aboard a variety of ship classes and shore facilities. The Spectral system will provide a mobile, passive capability to detect, classify, track, and determine the intent of enemy units through exploitation of their command and control emissions. The system searches the Radio Frequency (RF) spectrum based on operator-defined search strategies with the receivers under computer control, alerts the operator when a signal is detected and creates signal files to be used for on-line and post processing. The Spectral System will leverage existing architectures and support the integrated fires construct with Shipboard Combat Systems providing non-kinetic engagement to enhance combat effectiveness. The system will be scalable, reconfigurable to mission, modular, remotable and dynamically reprogrammable in response to new threats and capabilities. The system is upgraded incrementally as improvements are developed. The Spectral System will deliver improved information/cyber Warfare planning, exploitation, and attack capabilities across Naval platforms. |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| [P5 / 1U020 SSEE Modifications Engineering Change Proposal - Ship]: Engineering Change Proposal (ECP)/Obsolescence procures COTS/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the SSEE MODS program. ECP incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE MODS capability and relevance within a rapidly evolving threat environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |
| [P5 / 1U029 Information Warfare (IW) Training Equipment]: IW training equipment provides operator, unit or multi-unit level training on SSEE Increment F V 7/8 (Tactical Cryptologic Systems) (TCS). This equipment enhances initial skills, provides refresher training and increases proficiency of the operator on TCS through the generation and replay of operational scenarios by software simulation versus hardware                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |                                        |              |             |               |                                                              |                                     |                     |         |             |            |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        | Date: February 2018                                          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| <p>simulation. IW training equipment is updated based on new variants of Ships Signal Exploitation Equipment (SSEE) systems. Additionally this line supports the procurement of the STALLION (formerly known as Cryptologic On-Line Trainer) hardware for shipboard IW team training. Stallion is a web-based/Service Oriented Architecture (SOA) scenario training system that emulates Navy tactical Signal Intelligence (SIGINT)/Information Operations (IO) system functionality. Stallion is delivered turnkey to the Center for Information Dominance Learning Sites (CIDLS).</p> <p>[P5 / 1U060 ICADS]: Integrated Communications and Data System (ICADS) ((AN/URC-148(V)) is a Chief of Naval Operations (CNO) directed mission critical system providing advanced simulation capabilities and limited back-up communications for Naval platforms. The two Increments provide scalable capability dependent on host platform requirements. Specific program details held at a higher classification.</p> <p>[P5 / 1U014 SSEE Increment F (All Variants) ECP]: Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) Increment F program (All Variants). ECP incorporates Pre-Planned Product Improvement (P3I) for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP's maintain and improve upon SSEE Increment F's (All Variants) capability and relevance within a rapidly evolving threat environment. ECP equipment will also be used to enable SSEE Increment F(V)7/8 (TCS) to meet its scalable and modular capacity. Anti-Access, Area Denial (A2AD) capabilities integrated into the SSEE Systems will enable maritime power projection in enabling surface vessels to disrupt, deny, degrade and defeat adversary (state and non-state) use of the radio frequency spectrum, improving the Fleet's ability to communicate and operate therein. These systems will be deployed supporting Assured Command and Control, Battlespace Awareness, and Integrated Fires. INMARSAT Antenna ECP to replace obsolete and end-of-life (EOL) antenna. This antenna fulfills a High Gain Aperture requirement across the fleet as well as expandability to GX coverage and availability to interchangeable RF modules to support current CONOPs. This antenna will also increase DoD's cybersecurity posture while ensuring all SSEE systems and their components operate with latest supported hardware. Procurement profile to support new construction Navy ships. Flexibility to integrate and deliver capability under the P3I construct is maximized using the SSEE Collaborative Development and Integration Environment which utilizes the Amazon WebServices.gov (AWS) cloud infrastructure as the independent medium by provisioning capability of a Virtual Private Cloud architecture to automatically provision, deploy, and configure user capability for integration. The Navy Tactical Data Network (NTDN) is a cybersecurity initiative enabling National/Tactical Integration with US Navy Surface Cryptologic Systems by deploying NSANet afloat with special SIGINT processing capabilities, enterprise services, and a mission data repository allowing automated synchronization with (National Security Agency (NSA) databases. This Engineering Change Proposal (ECP) will back-fit force-level SSEE Increment F(V)1/2 systems as well as integrating the shore component with CLASSIC REACH. NTDN Network &amp; Information Technology (IT) infrastructure (afloat &amp; shore) that will be connected to the Automated Digital Network System (ADNS) Increment 3 Routers, Switch, Tac Lane, Wide Area Network (WAN) Optimizer, &amp; Server, Cross Domain Solutions (CDS) appliance between NTDN and SCI-Networks, Certification and Accreditation of SSEE FoS on peer-intranet NSA enclave afloat. In addition, an NTDN shore component will be deployed to support data flow to/from appropriate NSA data bases. Bladecenter replacement kits address obsolescence and resolve cybersecurity posturing while workstation upgrades place necessary technology updates to maximized operator performance. The Next Generation Chassis modifications provide enhanced data processing and greater exposure to existing system services while meeting constricting size, weight, power, and cooling requirements.</p> <p>[P3A / 1U017 SSEE Increment F (All Variants) Ship]: The SSEE Increment F program (All Variants) is an incremental acquisition, Commercial Off-The-Shelf/Government Off-The-Shelf (COTS/GOTS) program designed as the building block to improve the Information Warfare (IW) exploitation / Information Operations (IO) / non-kinetic and subsequent tactical cryptologic capability across Navy surface combatant platforms. SSEE Increment F (All Variants) provides the afloat IW / cryptologist with IO / non-kinetic capabilities and subsequent threat identification and analysis of Communications Intelligence as well as queuing of radio direction finding assets. Equipment includes receivers, Radio Frequency management systems, recorders, audio distribution systems, computers, antennas and ancillary hardware. The system is upgraded incrementally as improvements are developed. SSEE Increment F (All Variants) employs the Maritime Cryptologic Strategy for the 21st century concept of a single core architecture that is easily modernized and scaled in capability. The system design permits the rapid insertion of new and emerging Pre-Planned Product Improvement (P3I) to address the evolving threat. The system utilizes generic processor technology to counteract obsolescence issues with digital signal processing /field programmable gate array technologies and provide software receivers for ease of modification to deal with known and projected threat Signals of Interest (SOI). Automated signal acquisition and integrated radio direction finding are incorporated into the SSEE Increment F(V)1/2 system. SSEE Increment F (All Variants) also includes a small form factor variant, SSEE Increment F(V)7/8 Tactical Cryptologic System (TCS) to meet IW / IO / non-kinetic and subsequent tactical cryptologic capability onboard Arleigh Burke Class Destroyers (DDG) Flight I platforms and as a replacement for select SSEE Increment E variants and older signals intelligence systems.</p> <p>SSEE Increment F (V)7/8 (TCS) is a scalable, modular variant of SSEE Increment F(V)1/2 that allows configuration to meet platform mission requirements. SSEE Increment F (V)7/8 (TCS) leverages SSEE Increment F(V)1/2 common software, training, and logistics. SSEE Increment F (V)7/8 (TCS) consists of infrastructure (Topside Antennas) which will be permanently installed on 41 Unit Level ships. The Below Deck Core system includes a modular component to all Mission Tailorable upgrades to increase capabilities. The modularity and scalability of SSEE Increment F (V)7/8 (TCS) is delivered using Engineering Change Proposal (ECP). The Next Generation Chassis modifications provide enhanced data processing and greater exposure to existing system services while meeting constricting size, weight, power, and cooling requirements.</p> |                                        |                                                              |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               | <b>Date:</b> February 2018                                          |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 5: Reconnaissance Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                          |  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |                                                                     |  |
| <p>[P3A - 2 / 1U018/1U019 SSEE Modifications]: SSEE Modifications is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into SSEE systems. This capability provides simultaneous detection, collection, processing, IO and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today.</p> <p>It includes the Graywing subsystem which is an advanced common data link system that will be integrated into SSEE systems. It is a critical component of "Ballistic Missile Defense, Executive Committee, Anti-Submarine Warfare, Chief of Naval Operations, Executive Board IO Countermeasure Red Flash" initiative (details held at a higher classification level).</p> <p>[P3A - 3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants)]: Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) Increment F program (All Variants). ECP incorporates P3I for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE Increment F's (All Variants) capability and relevance within a rapidly evolving threat environment. ECP equipment will be used to enable SSEE Increment F(V)7/8 (TCS) to meet its scalable and modular capacity.</p> |                                               |                                                                     |  |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                             |                                                                                       |             |                                        |                |                                                              |                                          | Date: February 2018                      |                                          |                                          |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------|----------------------------------------|----------------|--------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment |                                                                                       |             |                                        |                | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                                          |                                          |                                          |                                          |                                          |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                      |                                                                                       |             | Program Elements for Code B Items: N/A |                |                                                              | Other Related Program Elements: N/A      |                                          |                                          |                                          |                                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                          |                                                                                       |             |                                        |                |                                                              |                                          |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                      |                                                                                       |             |                                        |                | Prior Years                                                  | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                           | Title*                                                                                | Subexhibits | ID CD                                  | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M)                     | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                    | 1 / Shipboard IW Exploit                                                              | P-5a        |                                        |                | - / 492.512                                                  | - / 49.770                               | - / 30.138                               | - / 32.337                               | - / 0.000                                | - / 32.337                               |
| P-3a                                                                                                                                                                   | 1 / 1U017 SSEE Increment F (All Variants) Ship (TBD)                                  |             |                                        |                | - / 439.174                                                  | - / 94.295                               | - / 110.462                              | - / 115.692                              | - / 0.000                                | - / 115.692                              |
| P-3a                                                                                                                                                                   | 2 / 1U018/1U019 SSEE Modifications (Upgrade)                                          |             |                                        |                | - / 39.347                                                   | - / 15.308                               | - / 39.491                               | - / 63.240                               | - / 0.000                                | - / 63.240                               |
| P-3a                                                                                                                                                                   | 3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) (Upgrade) |             |                                        |                | - / 28.840                                                   | - / 9.648                                | - / 6.916                                | - / 9.614                                | - / 0.000                                | - / 9.614                                |
| P-40                                                                                                                                                                   | Total Gross/Weapon System Cost                                                        |             |                                        |                | - / 999.873                                                  | - / 169.021                              | - / 187.007                              | - / 220.883                              | - / 0.000                                | - / 220.883                              |
| Exhibits Schedule                                                                                                                                                      |                                                                                       |             |                                        |                | FY 2020                                                      | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
| Exhibit Type                                                                                                                                                           | Title*                                                                                | Subexhibits | ID CD                                  | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M)                     | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                    | 1 / Shipboard IW Exploit                                                              | P-5a        |                                        |                | - / -                                                        | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a                                                                                                                                                                   | 1 / 1U017 SSEE Increment F (All Variants) Ship (TBD)                                  |             |                                        |                | - / 107.190                                                  | - / 62.277                               | - / 17.484                               | - / 0.530                                | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                   | 2 / 1U018/1U019 SSEE Modifications (Upgrade)                                          |             |                                        |                | - / 75.087                                                   | - / 72.255                               | - / 77.940                               | - / 81.089                               | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                   | 3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) (Upgrade) |             |                                        |                | - / 3.408                                                    | - / 3.338                                | - / 0.378                                | - / 0.000                                | - / 0.000                                | - / 62.142                               |
| P-40                                                                                                                                                                   | Total Gross/Weapon System Cost                                                        |             |                                        |                | - / 225.348                                                  | - / 263.170                              | - / 288.949                              | - / 299.719                              | Continuing                               | Continuing                               |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.   |                                                                                       |             |                                        |                |                                                              |                                          |                                          |                                          |                                          |                                          |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                 |                                                                                       |             |                                        |                |                                                              |                                          |                                          |                                          |                                          |                                          |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

The FY 2019 funding request was reduced by (\$2.519) million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

The FY19 funding request was reduced by \$2.722M to account for the availability of prior year execution balances.

Transfer of \$4.637 million from OPN to RD TEN for Integrated Communications and Data System (ICADS) Increment II. Details held at a higher classification.

The Shipboard IW budget supports SSEE (Ship's Signal Exploitation Equipment) Increment F(V)1/2 and SSEE Increment F(V)7/8 (Tactical Cryptologic System (TCS)), Anti-Access Area Denial (A2AD), Integrated Communications and Data System (ICADS) (AN/URC-148(V)), Afloat Cyber efforts, and Navy Tactical Data Network (NTDN). SSEE Increment F(V)7/8 (TCS) is a scalable, modular variant of SSEE Increment F(V)1/2 that allows configuration to meet platform mission requirements. SSEE Increment F(V)7/8 (TCS) leverages SSEE Increment F(V)1/2 common software, training, and logistics. SSEE Increment F(V)7/8 (TCS) consists of infrastructure (Topside Antennas) which will be permanently installed on 41 Unit Level ships. The Below Deck Core system includes a modular component for mission adaptable upgrades for increased capabilities. The modularity and scalability of SSEE Increment F(V)7/8 (TCS) is delivered using Engineering Change Proposal (ECP). Anti-Access Area Denial (A2AD) funding will procure Anti-Access Area Denial (A2AD) capabilities for the Ship's Signal Exploitation Equipment (SSEE) Increment F(V)1/2, Spectral(SSEE Increment G) and SSEE Modifications systems. A2AD capabilities integrated into the SSEE Systems will enable maritime power projection in enabling surface vessels to disrupt, deny, degrade and defeat adversary (state and non-state)

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        | Date: February 2018                                          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 5: Reconnaissance Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |                                                              |
| <p>use of the radio frequency spectrum, improving the Fleet's ability to communicate and operate therein. These systems will be deployed supporting Assured Command and Control, Battlespace Awareness, and Integrated Fires.</p> <p>ICADS ((AN/URC-148(V)) is a Navy directed mission critical system providing advanced simulation capabilities and limited back-up communications for Naval platforms. The two Increments provide scalable capability dependent on host platform requirements. Specific program details held at a higher classification.</p> <p>Afloat Cyber provides for the ability to continue and extend the Fleet's afloat cyber operations for the SSEE Family of Systems and includes procurement of Commercial off the Shelf hardware solutions (further details are held at a higher classification level and can be provided upon request).</p> <p>TCS has been broken out from SSEE Increment F(V)1/2 to better identify the individual costs for each system. Procurements are tied to ship availabilities balanced against the 12 month production lead time.</p>                          |                                        |                                                              |
| PROCUREMENT DATA:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |                                                              |
| <p>FY19 funding will procure:</p> <p>(10) Red Falcon Antennas</p> <p>(5) SSEE Increment F(V)1/2</p> <p>(8) SSEE Increment F(V)7/8 Tactical Cryptologic System (TCS) Below Deck, Core Systems and Infrastructures</p> <p>(9) SSEE Modifications Systems</p> <p>(1) IW Training Equipment</p> <p>(12) Blade Replacement Kits</p> <p>(5) SSEE Increment F(V)1/2 In-line Blade Kits</p> <p>(9) SSEE Increment F(V)1/2 ECP Next Generation Chassis</p> <p>(8) SSEE Increment F(V)1/2 Processing Upgrade Workstations</p> <p>(4) SSEE Increment F(V)1/2 Inmarsat Antennas</p> <p>(6) SSEE Increment F(V)7/8 (TCS) ECP IO Equipment Modules</p> <p>(1) SSEE Increment F(V)7/8 (TCS) SSC-W ECP Modules</p> <p>(6) SSEE Increment F(V)7/8 (TCS) SSC-W Upgrade ECP Modules</p> <p>(6) SSEE Increment F(V)7/8 (TCS) SSC-S ECP Modules</p> <p>(6) SSEE Increment F(V)7/8 (TCS) Red Falcon ECP Modules</p> <p>(2) SSEE Increment F(V)7/8 (TCS) Medusa ECP Modules</p> <p>(4) SSEE Increment F(V)7/8 (TCS) Next Generation Chassis</p> <p>(4) SSEE Increment F(V)1/2 NTDN/Classic Reach Systems</p> <p>(1) ICADS Increment I ECP Kit</p> |                                        |                                                              |
| <p>The following represents the increase from FY18 to FY19:</p> <p>(1) Additional SSEE Modifications Systems,</p> <p>(2) Additional SSEE Increment F(V)7/8 (TCS) systems</p> <p>(2) Additional SSEE Increment F(V)7/8 (TCS) installs</p> <p>(3) Additional SSEE Modifications Ship installs</p> <p>(4) Additional SSEE Increment F(V)1/2 Blade Replacement Kits</p> <p>(4) SSEE Increment F(V)1/2 Inmarsat Antennas</p> <p>(9) SSEE Increment F(V)1/2 ECP Next Generation Chassis</p> <p>(2) Additional SSEE Increment F(V)7/8 (TCS) ECP Information Operations (IO) Equipment Systems</p> <p>(6) SSEE Increment F(V)7/8 (TCS) ECP SSC-W Upgrades</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                                                              |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                               | <b>Date:</b> February 2018                                          |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 5: Reconnaissance Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               |                                                                     |
| <p>(4) SSEE Increment F(V)7/8 (TCS) Next Generation Chassis<br/>         (4) SSEE Increment F(V)1/2 NTDN/Classic Reach Systems<br/>         (1) ICADS Increment I ECP Kit</p> <p>Unit Price Cost for SSEE Increment F(V)1/2, (V)7/8 and SSEE Modifications have been updated to account for current procurement plan.</p> <p>Procurement UPCs for SSEE Increment F (all variants) and SSEE Modifications are based on contracted quantity discounts; SSEE OPN procurements are awarded with SSEE SCN, FMS and Coast Guard System procurements to achieve the best value for the government.</p> <p>Increase in unit procurement cost due to reduction in quantity procured between FY18 and FY19. The FY19 SSEE Increment F(V)1/2 Procurement contract award will include a total of 6 systems (5 OPN and 1 SCN ) resulting in a UPC of \$8.153M. The FY18 SSEE Increment F(V)1/2 Procurement contract award includes a total of 7 systems (6 OPN,1 SCN) resulting in a UPC of \$7.888M.</p> |                                               |                                                                     |



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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               | Date: February 2018                                      |                     |               |                      |                     |               |                      |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                                                               |  |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |                     |               |                      |                     |               |                      |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                     |               |                      |                     |               |                                                              |                     |               | MDAP/MAIS Code:      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| Resource Summary                                                                                                                       |  |                     |               | Prior Years          |                     |               | FY 2017                                                      |                     |               | FY 2018              |                     |               | FY 2019 Base                                             |                     |               | FY 2019 OCO          |                     |               | FY 2019 Total        |  |  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |  |                     |               | -                    |                     |               | -                                                            |                     |               | -                    |                     |               | -                                                        |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |  |                     |               | 492.512              |                     |               | 49.770                                                       |                     |               | 30.138               |                     |               | 32.337                                                   |                     |               | 0.000                |                     |               | 32.337               |  |  |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                            |                     |               | -                    |                     |               | -                                                        |                     |               | -                    |                     |               | -                    |  |  |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |  |                     |               | 492.512              |                     |               | 49.770                                                       |                     |               | 30.138               |                     |               | 32.337                                                   |                     |               | 0.000                |                     |               | 32.337               |  |  |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                            |                     |               | -                    |                     |               | -                                                        |                     |               | -                    |                     |               | -                    |  |  |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |  |                     |               | 492.512              |                     |               | 49.770                                                       |                     |               | 30.138               |                     |               | 32.337                                                   |                     |               | 0.000                |                     |               | 32.337               |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |  |                     |               | -                    |                     |               | -                                                            |                     |               | -                    |                     |               | -                                                        |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |  |                     |               | -                    |                     |               | -                                                            |                     |               | -                    |                     |               | -                                                        |                     |               | -                    |                     |               | -                    |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| Cost Elements                                                                                                                          |  | Prior Years         |               |                      | FY 2017             |               |                                                              | FY 2018             |               |                      | FY 2019 Base        |               |                                                          | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |  |  |
|                                                                                                                                        |  | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                         | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |  |  |
| Hardware - Hardware - 1U017 - SSEE Increment F(V)1/2 Shore Procurement Cost                                                            |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| 1.1.1) SSEE Increment F (V)1/2 Shore Procurement (Prior Years)                                                                         |  | 4,976.000           | 9             | 44.784               | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 44.784               | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Hardware - Hardware - 1U017 - SSEE Increment F(V)1/2 Shore Procurement Cost                                                  |  | -                   | -             | 44.784               | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Hardware - 1U013 SSEE Increment E ECP Cost                                                                                             |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| 2.1.1) SSEE Inc E ECPs (Prior Years) <sup>(1)</sup>                                                                                    |  | 1,626.693           | 189           | 307.445              | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.2) Red Falcon Antennas <sup>(1)</sup>                                                                                              |  | -                   | -             | 0.000                | 80.000              | 10            | 0.800                                                        | 81.000              | 10            | 0.810                | 82.000              | 10            | 0.820                                                    | -                   | -             | 0.000                | 82.000              | 10            | 0.820                |  |  |
| 2.1.3) XP Eradication/ SLEP <sup>(1)</sup>                                                                                             |  | -                   | -             | 0.000                | 150.000             | 17            | 2.550                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 307.445              | -                   | -             | 3.350                                                        | -                   | -             | 0.810                | -                   | -             | 0.820                                                    | -                   | -             | 0.000                | -                   | -             | 0.820                |  |  |
| Subtotal: Hardware - 1U013 SSEE Increment E ECP Cost                                                                                   |  | -                   | -             | 307.445              | -                   | -             | 3.350                                                        | -                   | -             | 0.810                | -                   | -             | 0.820                                                    | -                   | -             | 0.000                | -                   | -             | 0.820                |  |  |
| Hardware - 1U019 SSEE Modifications Shore Cost                                                                                         |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |  |  |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 | Date: February 2018                                      |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                       |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                     |               |                      |                     |                 | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                              |                     |               |                      |                     | MDAP/MAIS Code: |                                                          |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                              | FY 2018             |               |                      | FY 2019 Base        |                 |                                                          | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                         | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)   | Total Cost<br>(\$ M)                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 4.1.1) SSEE Modifications - LBTF Paragon/Graywing (Shore) <sup>(†)</sup>                       | 5,227.000           | 6             | 31.362               | 6,118.000           | 1             | 6.118                                                        | -                   | -             | 0.000                | -                   | -               | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 31.362               | -                   | -             | 6.118                                                        | -                   | -             | 0.000                | -                   | -               | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - 1U019 SSEE Modifications Shore Cost                                       | -                   | -             | 31.362               | -                   | -             | 6.118                                                        | -                   | -             | 0.000                | -                   | -               | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Hardware - 1U020 SSEE Modifications Engineering Change Proposal - Ship Cost                    |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| 5.1.2) SSEE Modifications ECP Dish Feed Training Site Infrastructure - Shore <sup>(†)</sup>    | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | 449.000             | 4             | 1.796                | -                   | -               | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 1.796                | -                   | -               | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - 1U020 SSEE Modifications Engineering Change Proposal - Ship Cost          | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 1.796                | -                   | -               | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Hardware - 1U029 Information Warfare (IW) Training Equipment Cost                              |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| 6.1.1) Information Warfare (IW) Training Equipment <sup>(†)</sup>                              | 918.000             | 16            | 14.688               | 1,895.000           | 1             | 1.895                                                        | 1,927.000           | 1             | 1.927                | 1,959.000           | 1               | 1.959                                                    | -                   | -             | 0.000                | 1,959.000           | 1             | 1.959                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 14.688               | -                   | -             | 1.895                                                        | -                   | -             | 1.927                | -                   | -               | 1.959                                                    | -                   | -             | 0.000                | -                   | -             | 1.959                |
| Subtotal: Hardware - 1U029 Information Warfare (IW) Training Equipment Cost                    | -                   | -             | 14.688               | -                   | -             | 1.895                                                        | -                   | -             | 1.927                | -                   | -               | 1.959                                                    | -                   | -             | 0.000                | -                   | -             | 1.959                |
| Hardware - 1U060 ICADS Cost                                                                    |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| 7.1.1) ICADS Increment I ECP Kit <sup>(†)</sup><br>(2)                                         | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | 4,310.000           | 1               | 4.310                                                    | -                   | -             | 0.000                | 4,310.000           | 1             | 4.310                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -               | 4.310                                                    | -                   | -             | 0.000                | -                   | -             | 4.310                |
| Subtotal: Hardware - 1U060 ICADS Cost                                                          | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -               | 4.310                                                    | -                   | -             | 0.000                | -                   | -             | 4.310                |
| Hardware - 1U014 SSEE Increment F (All Variants) ECP Cost                                      |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |
|                                                                                                |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |                 |                                                          |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               | Date: February 2018                                      |                     |               |                      |                     |               |                      |
|------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                       |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                              |                     |               |                      | MDAP/MAIS Code:     |               |                                                          |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                                                          |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                              | FY 2018             |               |                      | FY 2019 Base        |               |                                                          | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                         | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 8.1.1) SSEE Increment F (All Variants) ECP Prior Years <sup>(3)</sup>                          | 1,294.286           | 7             | 9.060                | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.3) SSEE Increment F (V)1/2 In-line Blade Kits <sup>(†)</sup>                               | -                   | -             | 0.000                | 666.000             | 6             | 3.996                                                        | 677.333             | 6             | 4.064                | 689.000             | 5             | 3.445                                                    | -                   | -             | 0.000                | 689.000             | 5             | 3.445                |
| 8.1.4) SSEE Increment F (V)1/2 ECP - Blade Replacement "Delta" Kit <sup>(†)</sup>              | -                   | -             | 0.000                | 292.000             | 12            | 3.504                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.5) SSEE Increment F (V)1/2 ECP - Next Generation Chassis <sup>(†)</sup>                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | 470.000             | 9             | 4.230                                                    | -                   | -             | 0.000                | 470.000             | 9             | 4.230                |
| 8.1.6) SSEE Increment F (V)1/2 ECP - Processing Upgrades Workstations <sup>(†)</sup>           | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | 25.000              | 8             | 0.200                | 25.375              | 8             | 0.203                                                    | -                   | -             | 0.000                | 25.375              | 8             | 0.203                |
| 8.1.7) SSEE Increment F (V)1/2 ECP - Inmarsat Antenna <sup>(†)</sup>                           | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | -                   | -             | 0.000                | 142.000             | 4             | 0.568                                                    | -                   | -             | 0.000                | 142.000             | 4             | 0.568                |
| 8.1.8) SSEE Increment F (V)1/2 ECP - Fury Data Right <sup>(†)</sup>                            | -                   | -             | 0.000                | -                   | -             | 0.000                                                        | 1,047.000           | 1             | 1.047                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.9) SSEE Increment F (V)1/2 ECP - Windows 10 Replacement Kit <sup>(†)</sup>                 | -                   | -             | 0.000                | 2,550.000           | 1             | 2.550                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.10) SSEE Increment F (V)1/2 ECP - Common Core/Bottoms-Up Implementation <sup>(†)</sup>     | -                   | -             | 0.000                | 3,060.000           | 1             | 3.060                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.11) SSEE Increment F (V)1/2 ECP - Cloud Environment <sup>(†)</sup>                         | -                   | -             | 0.000                | 1,836.000           | 1             | 1.836                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      | Date: February 2018                                      |               |                      |                     |               |                      |
|------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|--------------------------------------------------------------|---------------|----------------------|---------------------|---------------|----------------------|----------------------------------------------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                       |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |               |                      |                     |               |                      | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                      |                                                              |               |                      | MDAP/MAIS Code:     |               |                      |                                                          |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      |                                                          |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                      |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO                                              |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                          | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                      | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 8.1.12) SSEE<br>Increment F (V)1/2<br>ECP - Training<br>Device <sup>(†)</sup>                  | -                   | -             | 0.000                | -                   | -             | 0.000                | 1,500.000                                                    | 3             | 4.500                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.13) SSEE<br>Increment F (V)1/2<br>ECP - Recorders <sup>(†)</sup>                           | -                   | -             | 0.244                | 127.000             | 6             | 0.762                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.14) SSEE<br>Increment F (V)7/8<br>(TCS) ECP - RFCU<br>Kits <sup>(†)</sup>                  | -                   | -             | 2.712                | 678.000             | 11            | 7.458                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 8.1.15) SSEE<br>Increment F(V)7/8<br>(TCS) ECP IO<br>Equipment Modules <sup>(†)</sup>          | 688.000             | 4             | 2.752                | 700.000             | 5             | 3.500                | 712.000                                                      | 4             | 2.848                | 724.000             | 6             | 4.344                | -                                                        | -             | 0.000                | 724.000             | 6             | 4.344                |
| 8.1.16) SSEE<br>Increment F(V)7/8<br>(TCS) SSC-W ECP<br>Modules <sup>(†)</sup>                 | -                   | -             | 0.000                | 542.000             | 5             | 2.710                | 551.167                                                      | 6             | 3.307                | 561.000             | 1             | 0.561                | -                                                        | -             | 0.000                | 561.000             | 1             | 0.561                |
| 8.1.17) SSEE<br>Increment F(V)7/8<br>(TCS) SSC-W<br>Upgrade ECP<br>Modules <sup>(†)</sup>      | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.000                | 152.000             | 6             | 0.912                | -                                                        | -             | 0.000                | 152.000             | 6             | 0.912                |
| 8.1.18) SSEE<br>Increment F(V)7/8<br>(TCS) SSC-S ECP<br>Modules <sup>(†)</sup>                 | -                   | -             | 0.000                | 296.000             | 5             | 1.480                | 301.000                                                      | 6             | 1.806                | 306.167             | 6             | 1.837                | -                                                        | -             | 0.000                | 306.167             | 6             | 1.837                |
| 8.1.19) SSEE<br>Increment F(V)7/8<br>(TCS) Red Falcon<br>ECP Modules <sup>(†)</sup>            | 219.000             | 4             | 0.876                | 223.000             | 5             | 1.115                | 226.833                                                      | 6             | 1.361                | 230.667             | 6             | 1.384                | -                                                        | -             | 0.000                | 230.667             | 6             | 1.384                |
| 8.1.20) SSEE<br>Increment F(V)7/8<br>(TCS) Medusa ECP<br>Modules <sup>(†)</sup>                | 280.000             | 2             | 0.560                | 284.800             | 5             | 1.424                | 289.667                                                      | 6             | 1.738                | 295.000             | 2             | 0.590                | -                                                        | -             | 0.000                | 295.000             | 2             | 0.590                |
| 8.1.21) SSEE<br>Increment F(V)7/8<br>(TCS) Next<br>Generation Chassis <sup>(†)</sup>           | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.000                | 470.000             | 4             | 1.880                | -                                                        | -             | 0.000                | 470.000             | 4             | 1.880                |
| 8.1.23) SSEE<br>Increment F(V)1/2                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.000                | 481.000             | 4             | 1.924                | -                                                        | -             | 0.000                | 481.000             | 4             | 1.924                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      | Date: February 2018                                      |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                       |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |               |                      |                     |               |                      | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                      |                                                              |               |                      | MDAP/MAIS Code:     |               |                      |                                                          |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      |                                                          |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                      |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO                                              |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                          | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                      | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| NTDN/Classic Reach Systems <sup>(1)</sup>                                                      |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      |                                                          |               |                      |                     |               |                      |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 16.204               | -                   | -             | 33.395               | -                                                            | -             | 20.871               | -                   | -             | 21.878               | -                                                        | -             | 0.000                | -                   | -             | 21.878               |
| Subtotal: Hardware - 1U014 SSEE Increment F (All Variants) ECP Cost                            | -                   | -             | 16.204               | -                   | -             | 33.395               | -                                                            | -             | 20.871               | -                   | -             | 21.878               | -                                                        | -             | 0.000                | -                   | -             | 21.878               |
| Support - 1U555 Production Support Cost                                                        |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      |                                                          |               |                      |                     |               |                      |
| 9.1) Production Support (Prior Years) <sup>(4)</sup>                                           | -                   | -             | 5.926                | -                   | -             | 0.000                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 9.2) SSEE Inc E and SSEE Inc E ECP Production Support                                          | -                   | -             | 1.402                | -                   | -             | 0.201                | -                                                            | -             | 0.115                | -                   | -             | 0.129                | -                                                        | -             | 0.000                | -                   | -             | 0.129                |
| 9.5) ICADS Production Support                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.153                | -                   | -             | 0.259                | -                                                        | -             | 0.000                | -                   | -             | 0.259                |
| 9.6) SSEE Inc F (All Var) & SSEE Inc F (All Var) ECPs - Production Support                     | -                   | -             | 2.069                | -                   | -             | 2.359                | -                                                            | -             | 1.576                | -                   | -             | 1.907                | -                                                        | -             | 0.000                | -                   | -             | 1.907                |
| Subtotal: Support - 1U555 Production Support Cost                                              | -                   | -             | 9.397                | -                   | -             | 2.560                | -                                                            | -             | 1.844                | -                   | -             | 2.295                | -                                                        | -             | 0.000                | -                   | -             | 2.295                |
| Support - 1U776 / 1U777 Installation Cost                                                      |                     |               |                      |                     |               |                      |                                                              |               |                      |                     |               |                      |                                                          |               |                      |                     |               |                      |
| 10.1) Install/DSA (Prior Years) <sup>(5)</sup>                                                 | -                   | -             | 64.417               | -                   | -             | 0.000                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.2) DRT DSA                                                                                  | -                   | -             | 0.863                | -                   | -             | 0.252                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.3) DRT Blades Install                                                                       | -                   | -             | 3.094                | -                   | -             | 1.452                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.4) Medusa DSA                                                                               | -                   | -             | 0.042                | -                   | -             | 0.020                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.5) Medusa Install                                                                           | -                   | -             | 0.216                | -                   | -             | 0.108                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.6) Red Falcon DSA                                                                           | -                   | -             | 0.000                | -                   | -             | 0.110                | -                                                            | -             | 0.200                | -                   | -             | 0.220                | -                                                        | -             | 0.000                | -                   | -             | 0.220                |
| 10.7) Red Falcon Install                                                                       | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.330                | -                   | -             | 0.340                | -                                                        | -             | 0.000                | -                   | -             | 0.340                |
| 10.8) XP Eradication/ SLEP Install                                                             | -                   | -             | 0.000                | -                   | -             | 0.510                | -                                                            | -             | 0.000                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.13) SSEE Modifications LBTF Paragon/Graywing Install                                        | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 2.360                | -                   | -             | 0.000                | -                                                        | -             | 0.000                | -                   | -             | 0.000                |
| 10.17) SSEE Increment F(V)1/2 ECP - Next Generation Chassis - DSA                              | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.000                | -                   | -             | 0.137                | -                                                        | -             | 0.000                | -                   | -             | 0.137                |
| 10.18) SSEE Increment F(V)1/2 Processing                                                       | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                            | -             | 0.000                | -                   | -             | 0.040                | -                                                        | -             | 0.000                | -                   | -             | 0.040                |

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| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                                |                     |               |                      |                     |               |                                                                     |                     |               |                      |                        |               |                                                                 | <b>Date:</b> February 2018 |               |                      |                     |               |                      |
|------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|---------------------------------------------------------------------|---------------------|---------------|----------------------|------------------------|---------------|-----------------------------------------------------------------|----------------------------|---------------|----------------------|---------------------|---------------|----------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5                |                     |               |                      |                     |               | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                     |               |                      |                        |               | <b>Item Number / Title [DODIC]:</b><br>1 / Shipboard IW Exploit |                            |               |                      |                     |               |                      |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                        |                     |               |                      |                     |               |                                                                     |                     |               |                      | <b>MDAP/MAIS Code:</b> |               |                                                                 |                            |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                                     |                     |               |                      |                        |               |                                                                 |                            |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                                     | FY 2018             |               |                      | FY 2019 Base           |               |                                                                 | FY 2019 OCO                |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)    | Qty<br>(Each) | Total Cost<br>(\$ M)                                            | Unit Cost<br>(\$ K)        | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Upgrade Workstations - Install                                                                 |                     |               |                      |                     |               |                                                                     |                     |               |                      |                        |               |                                                                 |                            |               |                      |                     |               |                      |
| 10.20) SSEE Increment F(V)1/2 Inmarsat Antennas - DSA                                          | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                      | -             | 0.194                                                           | -                          | -             | 0.000                | -                   | -             | 0.194                |
| 10.22) SSEE Increment F(V)7/8 (TCS) Next Generation Chassis - DSA                              | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                      | -             | 0.062                                                           | -                          | -             | 0.000                | -                   | -             | 0.062                |
| 10.26) SSEE Increment F(V)1/2 NTDN/Classic Reach Systems - DSA                                 | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                      | -             | 0.082                                                           | -                          | -             | 0.000                | -                   | -             | 0.082                |
| <i>Subtotal: Support - 1U776 / 1U777 Installation Cost</i>                                     | -                   | -             | <b>68.632</b>        | -                   | -             | <b>2.452</b>                                                        | -                   | -             | <b>2.890</b>         | -                      | -             | <b>1.075</b>                                                    | -                          | -             | <b>0.000</b>         | -                   | -             | <b>1.075</b>         |
| <b>Gross/Weapon System Cost</b>                                                                | -                   | -             | <b>492.512</b>       | -                   | -             | <b>49.770</b>                                                       | -                   | -             | <b>30.138</b>        | -                      | -             | <b>32.337</b>                                                   | -                          | -             | <b>0.000</b>         | -                   | -             | <b>32.337</b>        |

**Remarks:**  
 [Hardware] Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) MODS program. ECP incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE MODS capability and relevance within a rapidly evolving threat environment.

(t) indicates the presence of a P-5a

**Footnotes:**  
 (1) SSEE Inc E ECP prior year Procurements (includes DRT and Medusa)  
 (2) Upgrades provide necessary hardware improvements to Integrated Communications and Data System (ICADS) Increment I system performance in alignment with Fleet requirements. The Engineering Changes modernize the original prototype system hardware and software components to improve the accuracy and modification of simulation capabilities. ICADS was previously funded under BLI 2188.  
 (3) SSEE Increment F (All Variants) ECP prior year Procurements (includes CUB Replacement and LBTF Refresh Kits)  
 (4) Prior year Production Support (Includes SSEE Increment F (V)1/2 Shore, SSEE Increment E ECP, and SSEE Modifications ECP Production Support Costs).  
 (5) Prior year Install/DSA Costs (includes SSEE Modifications Shore, SSEE Increment F(V)1/2 Shore and SSEE Increment E ECP Install/DSA Costs).

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy                 |             |      |                          |                                                              |                 |               |                              | Date: February 2018                                      |                     |                        |                               |                   |
|------------------------------------------------------------------------------|-------------|------|--------------------------|--------------------------------------------------------------|-----------------|---------------|------------------------------|----------------------------------------------------------|---------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5     |             |      |                          | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                 |               |                              | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |                     |                        |                               |                   |
| Cost Elements                                                                | O<br>C<br>O | FY   | Contractor and Location  | Method/Type<br>or<br>Funding Vehicle                         | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each)                                            | Unit Cost<br>(\$ K) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 2.1.2) Red Falcon Antennas                                                   |             | 2017 | SSC PAC / San Diego      | WR                                                           | San Diego, CA   | Dec 2016      | Jul 2017                     | 10                                                       | 80.000              | Y                      |                               |                   |
| 2.1.2) Red Falcon Antennas                                                   |             | 2018 | SSC PAC / San Diego      | WR                                                           | San Diego, CA   | Jan 2018      | Aug 2018                     | 10                                                       | 81.000              | N                      |                               |                   |
| 2.1.2) Red Falcon Antennas                                                   |             | 2019 | SSC PAC / San Diego      | WR                                                           | San Diego, CA   | Jan 2019      | Aug 2019                     | 10                                                       | 82.000              | N                      |                               |                   |
| 2.1.3) XP Eradication/SLEP                                                   |             | 2017 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | May 2017      | Nov 2017                     | 17                                                       | 150.000             | Y                      |                               |                   |
| 4.1.1) SSEE Modifications - LBTF Paragon/Graywing (Shore)                    |             | 2017 | Argon ST / Arlington, VA | C / FFP                                                      | San Diego, CA   | Sep 2017      | Sep 2018                     | 1                                                        | 6,118.000           | N                      |                               |                   |
| 5.1.2) SSEE Modifications ECP Dish Feed Training Site Infrastructure - Shore |             | 2018 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2018      | Jan 2019                     | 4                                                        | 449.000             | N                      |                               |                   |
| 6.1.1) Information Warfare (IW) Training Equipment                           |             | 2017 | SSC PAC / San Diego, CA  | WR                                                           | San Diego, CA   | Nov 2016      | Aug 2017                     | 1                                                        | 1,895.000           | Y                      |                               |                   |
| 6.1.1) Information Warfare (IW) Training Equipment                           |             | 2018 | SSC PAC / San Diego, CA  | WR                                                           | San Diego, CA   | Nov 2017      | Aug 2018                     | 1                                                        | 1,927.000           | Y                      |                               |                   |
| 6.1.1) Information Warfare (IW) Training Equipment                           |             | 2019 | SSC PAC / San Diego, CA  | WR                                                           | San Diego, CA   | Nov 2018      | Aug 2019                     | 1                                                        | 1,959.000           | N                      |                               |                   |
| 7.1.1) ICADS Increment I ECP Kit                                             |             | 2019 | TBD / TBD                | C / TBD                                                      | San Diego, CA   | Jan 2019      | Jan 2020                     | 1                                                        | 4,310.000           | N                      |                               |                   |
| 8.1.3) SSEE Increment F (V)1/2 In-line Blade Kits                            |             | 2017 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Aug 2017      | Aug 2018                     | 6                                                        | 666.000             | N                      |                               |                   |
| 8.1.3) SSEE Increment F (V)1/2 In-line Blade Kits                            |             | 2018 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2018      | Jan 2019                     | 6                                                        | 677.333             | N                      |                               |                   |
| 8.1.3) SSEE Increment F (V)1/2 In-line Blade Kits                            |             | 2019 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2019      | Jan 2020                     | 5                                                        | 689.000             | N                      |                               |                   |
| 8.1.4) SSEE Increment F (V)1/2 ECP - Blade Replacement "Delta" Kit           |             | 2017 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Aug 2017      | Aug 2018                     | 12                                                       | 292.000             | Y                      |                               |                   |
| 8.1.5) SSEE Increment F (V)1/2 ECP - Next Generation Chassis                 |             | 2019 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2019      | Jan 2020                     | 9                                                        | 470.000             | N                      |                               |                   |
| 8.1.6) SSEE Increment F (V)1/2 ECP - Processing Upgrades Workstations        |             | 2018 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2018      | Jan 2019                     | 8                                                        | 25.000              | N                      |                               |                   |
| 8.1.6) SSEE Increment F (V)1/2 ECP - Processing Upgrades Workstations        |             | 2019 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2019      | Jan 2020                     | 8                                                        | 25.375              | N                      |                               |                   |
| 8.1.7) SSEE Increment F (V)1/2 ECP - Inmarsat Antenna                        |             | 2019 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2019      | Jan 2020                     | 4                                                        | 142.000             | N                      |                               |                   |
| 8.1.8) SSEE Increment F (V)1/2 ECP - Fury Data Right                         |             | 2018 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Jan 2018      | Jan 2018                     | 1                                                        | 1,047.000           | N                      |                               |                   |
| 8.1.9) SSEE Increment F (V)1/2 ECP - Windows 10 Replacement Kit              |             | 2017 | ARGON / Fairfax, VA      | C / FFP                                                      | San Diego, CA   | Aug 2017      | Aug 2018                     | 1                                                        | 2,550.000           | Y                      |                               |                   |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy                      |             |      |                                                              |                                      |                 |               |                              | Date: February 2018                                      |                     |                        |                               |                   |
|-----------------------------------------------------------------------------------|-------------|------|--------------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------------------------------------------|---------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5          |             |      | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                                      |                 |               |                              | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |                     |                        |                               |                   |
| Cost Elements                                                                     | O<br>C<br>O | FY   | Contractor and Location                                      | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each)                                            | Unit Cost<br>(\$ K) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 8.1.10) SSEE Increment F (V)1/2<br>ECP - Common Core/Bottoms-Up<br>Implementation |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Aug 2017      | Aug 2018                     | 1                                                        | 3,060.000           | Y                      |                               |                   |
| 8.1.11) SSEE Increment F (V)1/2<br>ECP - Cloud Environment                        |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Aug 2017      | Aug 2018                     | 1                                                        | 1,836.000           | Y                      |                               |                   |
| 8.1.12) SSEE Increment F (V)1/2<br>ECP - Training Device                          |             | 2018 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2018      | Jan 2019                     | 3                                                        | 1,500.000           | N                      |                               |                   |
| 8.1.13) SSEE Increment F (V)1/2<br>ECP - Recorders                                |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Mar 2017      | Mar 2018                     | 6                                                        | 127.000             | Y                      |                               |                   |
| 8.1.14) SSEE Increment F (V)7/8<br>(TCS) ECP - RFCU Kits                          |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Aug 2017      | Aug 2018                     | 11                                                       | 678.000             | Y                      |                               |                   |
| 8.1.15) SSEE Increment F(V)7/8<br>(TCS) ECP IO Equipment Modules                  |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Mar 2017      | Mar 2018                     | 5                                                        | 700.000             | Y                      |                               |                   |
| 8.1.15) SSEE Increment F(V)7/8<br>(TCS) ECP IO Equipment Modules                  |             | 2018 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2018      | Jan 2019                     | 4                                                        | 712.000             | N                      |                               |                   |
| 8.1.15) SSEE Increment F(V)7/8<br>(TCS) ECP IO Equipment Modules                  |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2019      | Jan 2020                     | 6                                                        | 724.000             | N                      |                               |                   |
| 8.1.16) SSEE Increment F(V)7/8<br>(TCS) SSC-W ECP Modules                         |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Mar 2017      | Mar 2018                     | 5                                                        | 542.000             | Y                      |                               |                   |
| 8.1.16) SSEE Increment F(V)7/8<br>(TCS) SSC-W ECP Modules                         |             | 2018 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2018      | Jan 2019                     | 6                                                        | 551.167             | N                      |                               |                   |
| 8.1.16) SSEE Increment F(V)7/8<br>(TCS) SSC-W ECP Modules                         |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2019      | Jan 2020                     | 1                                                        | 561.000             | N                      |                               |                   |
| 8.1.17) SSEE Increment F(V)7/8<br>(TCS) SSC-W Upgrade ECP<br>Modules              |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2019      | Jan 2020                     | 6                                                        | 152.000             | N                      |                               |                   |
| 8.1.18) SSEE Increment F(V)7/8<br>(TCS) SSC-S ECP Modules                         |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Mar 2017      | Mar 2018                     | 5                                                        | 296.000             | Y                      |                               |                   |
| 8.1.18) SSEE Increment F(V)7/8<br>(TCS) SSC-S ECP Modules                         |             | 2018 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2018      | Jan 2019                     | 6                                                        | 301.000             | N                      |                               |                   |
| 8.1.18) SSEE Increment F(V)7/8<br>(TCS) SSC-S ECP Modules                         |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2019      | Jan 2020                     | 6                                                        | 306.167             | N                      |                               |                   |
| 8.1.19) SSEE Increment F(V)7/8<br>(TCS) Red Falcon ECP Modules                    |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Mar 2017      | Mar 2018                     | 5                                                        | 223.000             | Y                      |                               |                   |
| 8.1.19) SSEE Increment F(V)7/8<br>(TCS) Red Falcon ECP Modules                    |             | 2018 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2018      | Jan 2019                     | 6                                                        | 226.833             | N                      |                               |                   |
| 8.1.19) SSEE Increment F(V)7/8<br>(TCS) Red Falcon ECP Modules                    |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2019      | Jan 2020                     | 6                                                        | 230.667             | N                      |                               |                   |
| 8.1.20) SSEE Increment F(V)7/8<br>(TCS) Medusa ECP Modules                        |             | 2017 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Mar 2017      | Mar 2018                     | 5                                                        | 284.800             | Y                      |                               |                   |



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|--------------------------------------------------------------------------|-------------|------|--------------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------------------------------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |             |      |                                                              |                                      |                 |               |                              | Date: February 2018                                      |                            |                        |                               |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5 |             |      | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                                      |                 |               |                              | Item Number / Title [DODIC]:<br>1 / Shipboard IW Exploit |                            |                        |                               |                   |
| Cost Elements                                                            | O<br>C<br>O | FY   | Contractor and Location                                      | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i>                                     | Unit Cost<br><i>(\$ K)</i> | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 8.1.20) SSEE Increment F(V)7/8<br>(TCS) Medusa ECP Modules               |             | 2018 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2018      | Jan 2019                     | 6                                                        | 289.667                    | N                      |                               |                   |
| 8.1.20) SSEE Increment F(V)7/8<br>(TCS) Medusa ECP Modules               |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Feb 2019      | Feb 2020                     | 2                                                        | 295.000                    | N                      |                               |                   |
| 8.1.21) SSEE Increment F(V)7/8<br>(TCS) Next Generation Chassis          |             | 2019 | ARGON / Fairfax, VA                                          | C / FFP                              | San Diego, CA   | Jan 2019      | Jan 2020                     | 4                                                        | 470.000                    | N                      |                               |                   |
| 8.1.23) SSEE Increment F(V)1/2<br>NTDN/Classic Reach Systems             |             | 2019 | VARIOUS / TBD                                                | C / TBD                              | San Diego, CA   | Feb 2019      | Feb 2020                     | 4                                                        | 481.000                    | N                      |                               |                   |
|                                                                          |             |      |                                                              |                                      |                 |               |                              |                                                          |                            |                        |                               |                   |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------------------------------------------------------|-------------|---------------|-----------------|---------|--------------------------------------------------------------------------------|---------|-------------|------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |                                                              |             |               |                 |         | Date: February 2018                                                            |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |             |               |                 |         | Modification Number / Title:<br>1 / 1U017 SSEE Increment F (All Variants) Ship |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |         |         |                                                              |             |               | MDAP/MAIS Code: |         |                                                                                |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                 | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022                                                                        | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -           | -       | -       | -                                                            | -           | -             | -               | -       | -                                                                              | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 439.174     | 94.295  | 110.462 | 115.692                                                      | 0.000       | 115.692       | 107.190         | 62.277  | 17.484                                                                         | 0.530   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | -       | -       | -                                                            | -           | -             | -               | -       | -                                                                              | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 439.174     | 94.295  | 110.462 | 115.692                                                      | 0.000       | 115.692       | 107.190         | 62.277  | 17.484                                                                         | 0.530   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | -       | -       | -                                                            | -           | -             | -               | -       | -                                                                              | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 439.174     | 94.295  | 110.462 | 115.692                                                      | 0.000       | 115.692       | 107.190         | 62.277  | 17.484                                                                         | 0.530   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |         |                                                              |             |               |                 |         |                                                                                |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -       | -                                                            | -           | -             | -               | -       | -                                                                              | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -       | -                                                            | -           | -             | -               | -       | -                                                                              | -       | -           | -          |
| Description:<br>The Ship Signal Exploitation Equipment (SSEE) Inc F (All Variants) Program will provide strike groups with Information Operation (IO) / non-kinetic capabilities and the subsequent ability to exploit Signals Of Interest (SOI) by providing a state-of-the-art system which detects, acquires, and collects data on any potential threat.<br><br>[SSEE Increment F(V)1/2 Systems (Ship)] Unit Price Cost for SSEE Increment F(V)1/2, (V)7/8 and SSEE Modifications have been updated to account for current procurement plan.<br><br>Procurement UPCs for SSEE Increment F (all variants) and SSEE Modifications are based on contracted quantity discounts; SSEE OPN procurements are awarded with SSEE SCN, FMS and Coast Guard System procurements to achieve the best value for the government.<br><br>The FY19 SSEE Increment F(V)1/2 Procurement contract award includes a total of 6 systems (5 OPN and 1 SCN ) resulting in a UPC of \$8.153M. The FY18 SSEE Increment F(V)1/2 Procurement contract award includes a total of 7 systems (6 OPN,1 SCN) resulting in a UPC of \$7.888M.<br><br>[SSEE Increment F(V)7/8 (TCS) Below Deck and Core] SSEE Increment F(V)7/8 Tactical Cryptologic System (TCS) is a scalable, modular variant of SSEE Increment F that allows configuration to meet platform mission requirements. SSEE Increment F(V)7/8 (TCS) leverages SSEE Increment F common software, training, and logistics. SSEE Increment F(V)7/8 (TCS) consists of infrastructure (Topside Antennas) which are permanently installed on 41 Unit Level ships. The Below Deck Core system includes a modular component to all Mission Tailorable upgrades to increase capabilities. The modularity and scalability of SSEE Increment F(V)7/8 (TCS) is delivered using Engineering Change Proposal (ECP). The Next Generation Chassis modifications provide enhanced data processing and greater exposure to existing system services while meeting constricting size, weight, power, and cooling requirements. |             |         |         |                                                              |             |               |                 |         |                                                                                |         |             |            |

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|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|---------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                            |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>1 / 1U017 SSEE Increment F (All Variants) Ship |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                       |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                |                                |                                | <b>Modification Type:</b> TBD                                       |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0304785N |                                |                                                                                       |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                        | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| <b>Modification Item 1 of 1:</b> 1U017 SSEE Increment F (All Variants) Ship     |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| 1.1.1) SSEE Increment F(V)1/2 Systems (Ship) - NonOrganic <sup>(6)</sup>        | 40 / 303.094                   | 6 / 43.812                     | 6 / 47.328                     | 5 / 40.765                                                          | - / -                          | 5 / 40.765                     | 5 / 43.970                     | - / -                                  | - / -                          | - / -                                                                                 | - / -                          | 62 / 478.969                   |  |
| 1.1.2) SSEE Increment F(V)7/8 (TCS) Below Deck and Core - Organic               | 4 / 14.060                     | 5 / 18.295                     | 5 / 18.606                     | 8 / 30.276                                                          | - / -                          | 8 / 30.276                     | 6 / 23.093                     | 7 / 27.400                             | - / -                          | - / -                                                                                 | - / -                          | 35 / 131.730                   |  |
| 1.1.3) SSEE Increment F(V)7/8 (TCS) Infrastructure - NonOrganic <sup>(7)</sup>  | 5 / 5.170                      | 5 / 2.750                      | 5 / 2.797                      | 8 / 4.552                                                           | - / -                          | 8 / 4.552                      | 6 / 3.471                      | 7 / 4.119                              | - / -                          | - / -                                                                                 | - / -                          | 36 / 22.859                    |  |
| 1.1.4) SSEE Increment F(V)7/8 (TCS) Shore - Below Deck and Core - Organic       | - / -                          | 1 / 3.659                      | 1 / 3.721                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                 | - / -                          | 2 / 7.380                      |  |
| 1.1.5) SSEE Increment F(V)7/8 (TCS) Shore Infrastructure - NonOrganic           | 3 / 13.588                     | 1 / 0.550                      | 1 / 0.559                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                 | - / -                          | 5 / 14.697                     |  |
| <b>Subtotal: Recurring</b>                                                      | - / 335.912                    | - / 69.066                     | - / 73.011                     | - / 75.593                                                          | - / -                          | - / 75.593                     | - / 70.534                     | - / 31.519                             | - / -                          | - / -                                                                                 | - / 0.000                      | - / 655.635                    |  |
| <b>Subtotal: 1U017 SSEE Increment F (All Variants) Ship</b>                     | 52 / 335.912                   | 18 / 69.066                    | 18 / 73.011                    | 21 / 75.593                                                         | - / -                          | 21 / 75.593                    | 17 / 70.534                    | 14 / 31.519                            | - / -                          | - / -                                                                                 | - / -                          | 140 / 655.635                  |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 335.912                    | - / 69.066                     | - / 73.011                     | - / 75.593                                                          | - / -                          | - / 75.593                     | - / 70.534                     | - / 31.519                             | - / -                          | - / -                                                                                 | - / 0.000                      | - / 655.635                    |  |
| <b>Support (All Modification Items)</b>                                         |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| 2.1) Production Support (Ship) Inc F & TCS                                      | - / 21.001                     | - / 4.144                      | - / 4.381                      | - / 4.536                                                           | - / 0.000                      | - / 4.536                      | - / 3.879                      | - / 2.982                              | - / 1.149                      | - / 0.530                                                                             | Continuing                     | Continuing                     |  |
| 2.2) DSA (Ship)                                                                 | - / 16.417                     | - / 4.847                      | - / 5.986                      | - / 5.982                                                           | - / 0.000                      | - / 5.982                      | - / 5.249                      | - / 4.060                              | - / 1.104                      | - / 0.000                                                                             | Continuing                     | Continuing                     |  |
| <b>Subtotal: Support</b>                                                        | - / 37.418                     | - / 8.991                      | - / 10.367                     | - / 10.518                                                          | - / -                          | - / 10.518                     | - / 9.128                      | - / 7.042                              | - / 2.253                      | - / 0.530                                                                             | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| <b>Modification Item 1 of 1:</b> 1U017 SSEE Increment F (All Variants) Ship     | - / 65.844                     | - / 16.238                     | - / 27.084                     | - / 29.581                                                          | - / 0.000                      | - / 29.581                     | - / 27.528                     | - / 23.716                             | - / 15.231                     | - / 0.000                                                                             | - / 0.000                      | - / 205.222                    |  |
| <b>Subtotal: Installation</b>                                                   | - / 65.844                     | - / 16.238                     | - / 27.084                     | - / 29.581                                                          | - / -                          | - / 29.581                     | - / 27.528                     | - / 23.716                             | - / 15.231                     | - / -                                                                                 | - / 0.000                      | - / 205.222                    |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                       |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | 439.174                        | 94.295                         | 110.462                        | 115.692                                                             | 0.000                          | 115.692                        | 107.190                        | 62.277                                 | 17.484                         | 0.530                                                                                 | Continuing                     | Continuing                     |  |

## UNCLASSIFIED

|                                                                                                  |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|--------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                       |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018                                                            |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5                  |            |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>1 / 1U017 SSEE Increment F (All Variants) Ship |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                          |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                                                |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> 1U017 SSEE Increment F (All Variants) Ship                      |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                  |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: ARGON - SSEE INC F                                                            |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | Manufacturer Location: Fairfax, VA                                                    |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                           |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | Production Leadtime (in Months): 12                                                   |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                     |            | <b>FY 2017</b>                 |                                | <b>FY 2018</b>                 |                                                                     | <b>FY 2019</b>                 |                                | <b>FY 2020</b>                 |                                | <b>FY 2021</b>                                                                        |                                | <b>FY 2022</b>                 |                                | <b>FY 2023</b> |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                   |            | Mar 2017                       |                                | Jan 2018                       |                                                                     | Jan 2019                       |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                   |            | Mar 2018                       |                                | Jan 2019                       |                                                                     | Jan 2020                       |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                  |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Ship:: Installation Name: SSEE Increment F(V)1/2 Systems (Ship) |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                         |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                                                        | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                  |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                      |            | 32 / 64.944                    | 7 / 14.238                     | 1 / 2.069                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                 | - / -                          | 0 / 0.000                      | 40 / 81.251                    |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                          |            | - / -                          | - / -                          | 6 / 12.411                     | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                 | - / -                          | 0 / 0.000                      | 6 / 12.411                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                          |            | - / -                          | - / -                          | - / -                          | 6 / 12.624                                                          | 0 / 0.000                      | 6 / 12.624                     | - / -                          | - / -                          | - / -                                                                                 | - / -                          | 0 / 0.000                      | 6 / 12.624                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                          |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | 5 / 10.698                     | - / -                          | - / -                                                                                 | - / -                          | 0 / 0.000                      | 5 / 10.698                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                          |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | 5 / 10.879                     | - / -                                                                                 | - / -                          | 0 / 0.000                      | 5 / 10.879                     |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                          |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                 | - / -                          | - / -                          | - / -                          |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                          |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                 | - / -                          | - / -                          | - / -                          |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                          |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                 | - / -                          | - / -                          | - / -                          |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                      |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                 | - / -                          | - / -                          | - / -                          |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                            |            | 32 / 64.944                    | 7 / 14.238                     | 7 / 14.480                     | 6 / 12.624                                                          | 0 / 0.000                      | 6 / 12.624                     | 5 / 10.698                     | 5 / 10.879                     | - / -                                                                                 | - / -                          | 0 / 0.000                      | 62 / 127.863                   |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                     |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                                       |                                |                                |                                |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                  | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                                        |                                |                                |                                | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                  |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                                             | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                               | 30         | 2                              | 2                              | 3                              | 2                                                                   | -                              | -                              | 3                              | 2                              | 2                                                                                     | -                              | 3                              | 3                              | -              | -         | 3         | 2         | -              | -         | 2         | 3         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 62         |
| Out                                                                                              | 27         | 3                              | 2                              | 2                              | 3                                                                   | 2                              | -                              | -                              | 3                              | 2                                                                                     | 2                              | -                              | 3                              | 3              | -         | -         | 3         | 2              | -         | -         | 2         | 3              | -         | -         | -         | -              | -         | -         | -         | -         | 62         |

**UNCLASSIFIED**

|                                                                                 |                                                                     |                                                                                       |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit | <b>Modification Number / Title:</b><br>1 / 1U017 SSEE Increment F (All Variants) Ship |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** 1U017 SSEE Increment F (All Variants) Ship

**Installation Information**

**Method of Implementation:** IMO:: Installation Name: SSEE INC F Ship (Includes TCS Infrastructure)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 1 / 2.000                      | 4 / 8.136                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 10.136                     |
| FY 2017           | - / -                          | - / -                          | 2 / 4.068                      | 3 / 6.205                      | 0 / 0.000                      | 3 / 6.205                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 10.273                     |
| FY 2018           | - / -                          | - / -                          | - / -                          | 5 / 10.345                     | 0 / 0.000                      | 5 / 10.345                     | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 10.345                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 8 / 16.830                     | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 8 / 16.830                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 6 / 12.837                     | - / -                          | - / -                          | 0 / 0.000                      | 6 / 12.837                     |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 15.231                     | - / -                          | 0 / 0.000                      | 7 / 15.231                     |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 1 / 2.000                      | 6 / 12.204                     | 8 / 16.550                     | 0 / 0.000                      | 8 / 16.550                     | 8 / 16.830                     | 6 / 12.837                     | 7 / 15.231                     | - / -                          | 0 / 0.000                      | 36 / 75.652                    |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | 1  | -  | -  | -       | -  | 4  | 2  | -       | 1  | 4  | 3  | -       | -  | 4  | 4  | -       | -  | 3  | 3  | -       | -  | 3  | 4  | -       | -  | -  | -  | -  | 36  |
| Out | -   | -       | -  | 1  | -  | -       | -  | -  | 4  | 2       | -  | 1  | 4  | 3       | -  | -  | 4  | 4       | -  | -  | 3  | 3       | -  | -  | 3  | 4       | -  | -  | -  | -  | 36  |

**Method of Implementation:** IMO:: Installation Name: SSEE Increment F(V)7/8 (TCS) Shore Infrastructure

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 3 / 0.900                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.900                      |
| FY 2017           | - / -                          | - / -                          | 1 / 0.400                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.400                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | 1 / 0.407                      | 0 / 0.000                      | 1 / 0.407                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.407                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit | <b>Modification Number / Title:</b><br>1 / 1U017 SSEE Increment F (All Variants) Ship |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** 1U017 SSEE Increment F (All Variants) Ship

**Installation Information**

**Method of Implementation:** IMO:: Installation Name: SSEE Increment F(V)7/8 (TCS) Shore Infrastructure

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 3 / 0.900                      | - / -                          | 1 / 0.400                      | 1 / 0.407                      | 0 / 0.000                      | 1 / 0.407                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 1.707                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 3   | -       | -  | -  | -  | -       | -  | 1  | -  | -       | -  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 5   |
| Out | 3   | -       | -  | -  | -  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 5   |

|                                                                                                             |                                  |
|-------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>Method of Implementation (Organic):</b> SSEE Increment F(V)7/8 (TCS) Below Deck and Core - Not Installed | <b>Installation Quantity:</b> 35 |
|-------------------------------------------------------------------------------------------------------------|----------------------------------|

|                                                                                                                     |                                 |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Method of Implementation (Organic):</b> SSEE Increment F(V)7/8 (TCS) Shore - Below Deck and Core - Not Installed | <b>Installation Quantity:</b> 2 |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------|

**Footnotes:**

<sup>(6)</sup> The FY19 SSEE Increment F(V)1/2 Procurement contract award includes a total of 6 systems (5 OPN and 1 SCN ) resulting in a UPC of \$8.153M. The FY18 SSEE Increment F(V)1/2 Procurement contract award includes a total of 7 systems (6 OPN,1 SCN) resulting in a UPC of \$7.888M.

<sup>(7)</sup> Tactical Cryptologic System (TCS) Infrastructure procurements are comprised of the antenna infrastructure and core hardware components. TCS Infrastructure is permanently installed on (41) Unit Level platforms. The Unit Level platforms pull from the TCS Below Deck and Core system rotatable pool when deploying.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                           |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |  |                            |  | <b>Modification Number / Title:</b><br>2 / 1U018/1U019 SSEE Modifications |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 39.347      | 15.308  | 39.491  | 63.240       | 0.000       | 63.240          | 75.087  | 72.255  | 77.940  | 81.089  | Continuing  | Continuing |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 39.347      | 15.308  | 39.491  | 63.240       | 0.000       | 63.240          | 75.087  | 72.255  | 77.940  | 81.089  | Continuing  | Continuing |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 39.347      | 15.308  | 39.491  | 63.240       | 0.000       | 63.240          | 75.087  | 72.255  | 77.940  | 81.089  | Continuing  | Continuing |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

SSEE Modifications is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into Ship Signal Exploitation Equipment (SSEE) systems. This capability provides simultaneous detection, collection, processing, Information Operations and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today. It includes the Graywing subsystem which is an advanced common data link system that will be integrated into SSEE Increment E and Increment F systems. It is a critical component of "Ballistic Missile Defense, Executive Committee, Anti-Submarine Warfare, Chief of Naval Operations, Executive Board Information Operation (IO) Countermeasure Red Flash" (details held at a higher classification level).

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|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                |                                                              |                                |                                |                                | Date: February 2018                                                |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5 |                                |                                |                                | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                                |                                |                                | Modification Number / Title:<br>2 / 1U018/1U019 SSEE Modifications |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                                                    |                                |                                |                                |                                |
| Models of Systems Affected: Various                                      |                                |                                | Modification Type: Upgrade     |                                                              |                                |                                |                                | Related RDT&E PEs: 0304785N                                        |                                |                                |                                |                                |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                            | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                              |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Modification Item 1 of 1: 1U018/1U019 SSEE Modifications                 |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| B Kits                                                                   |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Recurring                                                                |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| 1.1.1) SSEE Mods Prior Years - NonOrganic <sup>(8)</sup>                 | 3 / 10.928                     | - / -                          | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | - / -                                                              | - / -                          | - / -                          | - / -                          | 3 / 10.928                     |
| 1.1.2) Graywing - NonOrganic                                             | 3 / 16.611                     | 2 / 12.236                     | 6 / 33.150                     | 9 / 48.645                                                   | - / -                          | 9 / 48.645                     | 10 / 54.960                    | 9 / 50.305                                                         | 10 / 56.845                    | 10 / 57.811                    | Continuing                     | Continuing                     |
| Subtotal: Recurring                                                      | - / 27.539                     | - / 12.236                     | - / 33.150                     | - / 48.645                                                   | - / -                          | - / 48.645                     | - / 54.960                     | - / 50.305                                                         | - / 56.845                     | - / 57.811                     | Continuing                     | Continuing                     |
| Subtotal: 1U018/1U019 SSEE Modifications                                 | 6 / 27.539                     | 2 / 12.236                     | 6 / 33.150                     | 9 / 48.645                                                   | - / -                          | 9 / 48.645                     | 10 / 54.960                    | 9 / 50.305                                                         | 10 / 56.845                    | 10 / 57.811                    | Continuing                     | Continuing                     |
| Subtotal: Procurement, All Modification Items                            | - / 27.539                     | - / 12.236                     | - / 33.150                     | - / 48.645                                                   | - / -                          | - / 48.645                     | - / 54.960                     | - / 50.305                                                         | - / 56.845                     | - / 57.811                     | Continuing                     | Continuing                     |
| Support (All Modification Items)                                         |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| 2.1) Production Support                                                  | - / 6.066                      | - / 1.101                      | - / 1.987                      | - / 2.873                                                    | - / -                          | - / 2.873                      | - / 2.900                      | - / 2.867                                                          | - / 3.277                      | - / 3.353                      | Continuing                     | Continuing                     |
| 2.2) DSA                                                                 | - / 1.877                      | - / 0.425                      | - / 1.210                      | - / 2.128                                                    | - / -                          | - / 2.128                      | - / 2.593                      | - / 2.546                                                          | - / 2.682                      | - / 2.821                      | Continuing                     | Continuing                     |
| Subtotal: Support                                                        | - / 7.943                      | - / 1.526                      | - / 3.197                      | - / 5.001                                                    | - / -                          | - / 5.001                      | - / 5.493                      | - / 5.413                                                          | - / 5.959                      | - / 6.174                      | Continuing                     | Continuing                     |
| Installation                                                             |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Modification Item 1 of 1: 1U018/1U019 SSEE Modifications                 | - / 3.865                      | - / 1.546                      | - / 3.144                      | - / 9.594                                                    | - / 0.000                      | - / 9.594                      | - / 14.634                     | - / 16.537                                                         | - / 15.136                     | - / 17.104                     | Continuing                     | Continuing                     |
| Subtotal: Installation                                                   | - / 3.865                      | - / 1.546                      | - / 3.144                      | - / 9.594                                                    | - / -                          | - / 9.594                      | - / 14.634                     | - / 16.537                                                         | - / 15.136                     | - / 17.104                     | Continuing                     | Continuing                     |
| Total                                                                    |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                        | 39.347                         | 15.308                         | 39.491                         | 63.240                                                       | 0.000                          | 63.240                         | 75.087                         | 72.255                                                             | 77.940                         | 81.089                         | Continuing                     | Continuing                     |
|                                                                          |                                |                                |                                |                                                              |                                |                                |                                |                                                                    |                                |                                |                                |                                |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                |                |                |                                                                     |                |                                             | <b>Date:</b> February 2018 |                                                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 |                |                |                | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                |                                             |                            | <b>Modification Number / Title:</b><br>2 / 1U018/1U019 SSEE Modifications |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                |                |                |                                                                     |                |                                             | <b>MDAP/MAIS Code:</b>     |                                                                           |  |
| <b>Modification Item 1 of 1:</b> 1U018/1U019 SSEE Modifications                 |                |                |                |                                                                     |                |                                             |                            |                                                                           |  |
| <b>Manufacturer Information</b>                                                 |                |                |                |                                                                     |                |                                             |                            |                                                                           |  |
| Manufacturer Name: ARGON - Graywing - SHIP <sup>(9)</sup>                       |                |                |                |                                                                     |                | Manufacturer Location: Fairfax, VA          |                            |                                                                           |  |
| Administrative Leadtime <i>(in Months)</i> : 3                                  |                |                |                |                                                                     |                | Production Leadtime <i>(in Months)</i> : 12 |                            |                                                                           |  |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b>                                                      | <b>FY 2021</b> | <b>FY 2022</b>                              | <b>FY 2023</b>             |                                                                           |  |
| Contract Dates                                                                  | Sep 2017       | May 2018       | Jan 2019       |                                                                     |                |                                             |                            |                                                                           |  |
| Delivery Dates                                                                  | Sep 2018       | May 2019       | Jan 2020       |                                                                     |                |                                             |                            |                                                                           |  |

**Installation Information****Method of Implementation:** IMO:: Installation Name: Paragon-Graywing

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 3 / 0.825                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.825                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 3 / 0.825                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.825                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 3   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |
| Out | 3   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |

**Method of Implementation:** Ship:: Installation Name: Graywing

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 2 / 3.040                      | 1 / 1.546                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 4.586                      |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------------|---------------------------------------|---------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                      |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5                                                                                                                 |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>2 / 1U018/1U019 SSEE Modifications |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                         |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                                                    |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> 1U018/1U019 SSEE Modifications                                                                                                                                 |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                           |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                 |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                           |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Ship:: Installation Name: Graywing                                                                                                                             |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                           |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                        | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                            | <b>To Complete</b>                    | <b>Total</b>                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                         | - / -                                 | - / -                                 | 2 / 3.144                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                     | 0 / 0.000                             | 2 / 3.144                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                         | - / -                                 | - / -                                 | - / -                                 | 6 / 9.594                             | 0 / 0.000                                                           | 6 / 9.594                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                     | 0 / 0.000                             | 6 / 9.594                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                         | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | 9 / 14.634                            | - / -                                 | - / -                                 | - / -                                                                     | 0 / 0.000                             | 9 / 14.634                            |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                         | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | 10 / 16.537                           | - / -                                 | - / -                                                                     | 0 / 0.000                             | 10 / 16.537                           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                         | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | 9 / 15.136                            | - / -                                                                     | 0 / 0.000                             | 9 / 15.136                            |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                         | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 10 / 17.104                                                               | 0 / 0.000                             | 10 / 17.104                           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                         | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                     | Continuing                            | Continuing                            |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                     | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                           | 2 / 3.040                             | 1 / 1.546                             | 2 / 3.144                             | 6 / 9.594                             | 0 / 0.000                                                           | 6 / 9.594                             | 9 / 14.634                            | 10 / 16.537                           | 9 / 15.136                            | 10 / 17.104                                                               | Continuing                            | Continuing                            |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                    |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                           |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                 | <b>PYS</b>                            | <b>FY 2017</b>                        |                                       |                                       |                                                                     | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                            |                                       |                                       |           | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                 |                                       | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                                                           | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                 | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                              | 2                                     | -                                     | -                                     | -                                     | -                                                                   | 1                                     | -                                     | -                                     | 2                                     | -                                                                         | -                                     | 3                                     | 3         | -              | -         | 5         | 4         | -              | -         | 5         | 5         | -              | -         | 4         | 5         | -              | -         | 5         | 5         | 10        | 59         |
| Out                                                                                                                                                                                             | -                                     | 2                                     | -                                     | -                                     | -                                                                   | -                                     | 1                                     | -                                     | -                                     | 2                                                                         | -                                     | -                                     | 3         | 3              | -         | -         | 5         | 4              | -         | -         | 5         | 5              | -         | -         | 4         | 5              | -         | -         | 5         | 15        | 59         |
| <b>Footnotes:</b><br><sup>(8)</sup> SSEE Mods prior year procurements (Includes Paragon subsystem and LRIP Retrofit Kit).<br><sup>(9)</sup> Contract award dates do not impact install schedule |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                           |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|---------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|--------------------------------------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                     |                                                                     |                      |                        |                |                | <b>Date:</b> February 2018                                                                                         |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                     |                                                                     |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                                    |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                                     | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                                                  | -                  | -             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 28.840             | 9.648          | 6.916          | 9.614               | 0.000                                                               | 9.614                | 3.408                  | 3.338          | 0.378          | 0.000                                                                                                              | 0.000              | 62.142        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                                                  | -                  | -             |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 28.840             | 9.648          | 6.916          | 9.614               | 0.000                                                               | 9.614                | 3.408                  | 3.338          | 0.378          | 0.000                                                                                                              | 0.000              | 62.142        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                                                  | -                  | -             |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>28.840</b>      | <b>9.648</b>   | <b>6.916</b>   | <b>9.614</b>        | <b>0.000</b>                                                        | <b>9.614</b>         | <b>3.408</b>           | <b>3.338</b>   | <b>0.378</b>   | <b>0.000</b>                                                                                                       | <b>0.000</b>       | <b>62.142</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                                                    |                    |               |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                                                  | -                  | -             |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                                                  | -                  | -             |
| <p><b>Description:</b></p> <p>Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) Increment F (All Variants) program. ECP incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE Increment F's (All Variants) capability and relevance within a rapidly evolving threat environment. ECP equipment will be used to enable SSEE Increment F(V)7/8 (TCS) to meet its scalable and modular capacity.</p> <p>[Blade Replacement Kits] Procurement of Blade Replacement Kits to address IBM/Lenovo server replacement (Lenovo servers are being sold to foreign owners). These kits are able to support system Technical Refresh, Windows 10 operating system compliance and replace obsolete parts.</p> |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                                                    |                    |               |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                               |                                |                                |                                |                                                              |                                |                                |                                | Date: February 2018                                                                                         |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                          |                                |                                |                                | P-1 Line Item Number / Title:<br>2360 / Shipboard IW Exploit |                                |                                |                                | Modification Number / Title:<br>3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                  |                                |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                                             |                                |                                |                                |                                |  |
| Models of Systems Affected: SSEE Inc F                                                            |                                |                                | Modification Type: Upgrade     |                                                              |                                |                                |                                | Related RDT&E PEs: 0304785N                                                                                 |                                |                                |                                |                                |  |
| Financial Plan                                                                                    | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                                     | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                                       |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| B Kits                                                                                            |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| Recurring                                                                                         |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| 1.1.1) SSEE Increment F (All Variants) ECP Prior Years - NonOrganic <sup>(10)</sup>               | 14 / 9.789                     | - / -                          | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                                                       | - / -                          | - / -                          | - / -                          | 14 / 9.789                     |  |
| 1.1.2) Blade Replacement Kits - NonOrganic                                                        | 20 / 13.384                    | 12 / 7.992                     | 8 / 5.419                      | 12 / 8.268                                                   | - / -                          | 12 / 8.268                     | 3 / 2.102                      | 4 / 2.850                                                                                                   | - / -                          | - / -                          | - / -                          | 59 / 40.015                    |  |
| Subtotal: Recurring                                                                               | - / 23.173                     | - / 7.992                      | - / 5.419                      | - / 8.268                                                    | - / -                          | - / 8.268                      | - / 2.102                      | - / 2.850                                                                                                   | - / -                          | - / -                          | - / 0.000                      | - / 49.804                     |  |
| Subtotal: 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants)                 | 34 / 23.173                    | 12 / 7.992                     | 8 / 5.419                      | 12 / 8.268                                                   | - / -                          | 12 / 8.268                     | 3 / 2.102                      | 4 / 2.850                                                                                                   | - / -                          | - / -                          | - / -                          | 73 / 49.804                    |  |
| Subtotal: Procurement, All Modification Items                                                     | - / 23.173                     | - / 7.992                      | - / 5.419                      | - / 8.268                                                    | - / -                          | - / 8.268                      | - / 2.102                      | - / 2.850                                                                                                   | - / -                          | - / -                          | - / 0.000                      | - / 49.804                     |  |
| Support (All Modification Items)                                                                  |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| 2.1) Prior Year Support and DSA Costs <sup>(11)</sup>                                             | - / 0.420                      | - / -                          | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                                                       | - / -                          | - / -                          | - / -                          | - / 0.420                      |  |
| 2.2) DSA                                                                                          | - / 1.954                      | - / 0.804                      | - / 0.631                      | - / 0.759                                                    | - / -                          | - / 0.759                      | - / 0.410                      | - / 0.260                                                                                                   | - / 0.069                      | - / -                          | - / -                          | - / 4.887                      |  |
| Subtotal: Support                                                                                 | - / 2.374                      | - / 0.804                      | - / 0.631                      | - / 0.759                                                    | - / -                          | - / 0.759                      | - / 0.410                      | - / 0.260                                                                                                   | - / 0.069                      | - / -                          | - / 0.000                      | - / 5.307                      |  |
| Installation                                                                                      |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) | - / 3.293                      | - / 0.852                      | - / 0.866                      | - / 0.587                                                    | - / 0.000                      | - / 0.587                      | - / 0.896                      | - / 0.228                                                                                                   | - / 0.309                      | - / 0.000                      | - / 0.000                      | - / 7.031                      |  |
| Subtotal: Installation                                                                            | - / 3.293                      | - / 0.852                      | - / 0.866                      | - / 0.587                                                    | - / -                          | - / 0.587                      | - / 0.896                      | - / 0.228                                                                                                   | - / 0.309                      | - / -                          | - / 0.000                      | - / 7.031                      |  |
| Total                                                                                             |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                                                 | 28.840                         | 9.648                          | 6.916                          | 9.614                                                        | 0.000                          | 9.614                          | 3.408                          | 3.338                                                                                                       | 0.378                          | 0.000                          | 0.000                          | 62.142                         |  |
|                                                                                                   |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                             |                                |                                |                                |                                |  |

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|------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|---------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                 |                                |                                |                                |                                                                     |                                |                                       |                                | <b>Date:</b> February 2018                                                                                         |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5                            |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit |                                |                                       |                                | <b>Modification Number / Title:</b><br>3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                    |                                |                                |                                |                                                                     |                                |                                       |                                | <b>MDAP/MAIS Code:</b>                                                                                             |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants)   |                                |                                |                                |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                            |                                |                                |                                |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| Manufacturer Name: ARGON - SSEE INC F ECP                                                                  |                                |                                |                                |                                                                     |                                | Manufacturer Location: Fairfax, VA    |                                |                                                                                                                    |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                     |                                |                                |                                |                                                                     |                                | Production Leadtime (in Months): 12   |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Dates</b>                                                                                               | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                                                                                                    |                                |                                |                                |                                |
| Contract Dates                                                                                             | Aug 2017                       | Jan 2018                       | Jan 2019                       |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| Delivery Dates                                                                                             | Aug 2018                       | Jan 2019                       | Jan 2020                       |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| Manufacturer Name: SSC LANT - INMARSAT                                                                     |                                |                                |                                |                                                                     |                                | Manufacturer Location: Charleston, SC |                                |                                                                                                                    |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                     |                                |                                |                                |                                                                     |                                | Production Leadtime (in Months): 12   |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Dates</b>                                                                                               | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                                                                                                    |                                |                                |                                |                                |
| Contract Dates                                                                                             |                                |                                | Jan 2019                       |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| Delivery Dates                                                                                             |                                |                                | Jan 2020                       |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| Manufacturer Name: TBD - NTDN (Large Deck Platforms and Classic Reach)                                     |                                |                                |                                |                                                                     |                                | Manufacturer Location: TBD            |                                |                                                                                                                    |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                     |                                |                                |                                |                                                                     |                                | Production Leadtime (in Months): 12   |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Dates</b>                                                                                               | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                                                                                                    |                                |                                |                                |                                |
| Contract Dates                                                                                             |                                |                                | Jan 2019                       |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| Delivery Dates                                                                                             |                                |                                | Jan 2020                       |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                            |                                |                                |                                |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Method of Implementation:</b> Ship:: Installation Name: SSEE Increment F (All Variants) ECP Prior Years |                                |                                |                                |                                                                     |                                |                                       |                                |                                                                                                                    |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                   | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                                                     | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                | 14 / 2.733                     | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | 0 / 0.000                      | 14 / 2.733                     |
| FY 2017                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023                                                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                                                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                                      | 14 / 2.733                     | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                                                              | - / -                          | - / -                          | 0 / 0.000                      | 14 / 2.733                     |

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|---------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                                                         |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 | <b>P-1 Line Item Number / Title:</b><br>2360 / Shipboard IW Exploit | <b>Modification Number / Title:</b><br>3 / 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** 1U014 Engineering Change Proposal (ECP) SSEE Increment F (All Variants)

**Installation Information**

**Method of Implementation:** Ship:: Installation Name: SSEE Increment F (All Variants) ECP Prior Years

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 14  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 14  |
| Out | 13  | 1       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 14  |

**Method of Implementation:** IMO:: Installation Name: ECP INC F

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 8 / 0.560                      | 12 / 0.852                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 20 / 1.412                     |
| FY 2017           | - / -                          | - / -                          | 12 / 0.866                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 12 / 0.866                     |
| FY 2018           | - / -                          | - / -                          | - / -                          | 8 / 0.587                      | 0 / 0.000                      | 8 / 0.587                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 8 / 0.587                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 12 / 0.896                     | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 12 / 0.896                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 0.228                      | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.228                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 4 / 0.309                      | - / -                          | 0 / 0.000                      | 4 / 0.309                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 8 / 0.560                      | 12 / 0.852                     | 12 / 0.866                     | 8 / 0.587                      | 0 / 0.000                      | 8 / 0.587                      | 12 / 0.896                     | 3 / 0.228                      | 4 / 0.309                      | - / -                          | 0 / 0.000                      | 59 / 4.298                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 6   | 2       | 3  | 3  | 3  | 3       | 4  | 4  | 4  | -       | -  | 4  | 4  | -       | 4  | 4  | 4  | -       | -  | 2  | 1  | -       | -  | 2  | 2  | -       | -  | -  | -  | -  | 59  |
| Out | 4   | 2       | 2  | 3  | 3  | 3       | 3  | 4  | 4  | 4       | -  | -  | 4  | 4       | -  | 4  | 4  | 4       | -  | -  | 2  | 1       | -  | -  | 2  | 2       | -  | -  | -  | -  | 59  |

**Footnotes:**

<sup>(10)</sup> SSEE Increment F (all variants) ECP Prior Year procurements (includes LRIP to FRP Back fit Kit and Red Falcon Upgrade Kits).

<sup>(11)</sup> Prior year Production support and DSA costs for SSEE Increment F (all variants) ECP's.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------|--------------------|----------------------|--------------------------------------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                |                    |                |                |                                               |                    |                      |                                                                                      |                                            |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 5: Reconnaissance Equipment |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2361 / Automatic Identification System (AIS) |                                            |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                         |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                                      | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                             |                    |                |                |                                               |                    |                      |                                                                                      |                                            |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                       | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                    | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                    | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                               | 4.658              | 0.764          | 0.510          | 4.028                                         | 0.000              | 4.028                | 5.380                                                                                | 4.270                                      | 3.622          | 2.616                      | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                    | -                                          | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                  | 4.658              | 0.764          | 0.510          | 4.028                                         | 0.000              | 4.028                | 5.380                                                                                | 4.270                                      | 3.622          | 2.616                      | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                    | -                                          | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                      | <b>4.658</b>       | <b>0.764</b>   | <b>0.510</b>   | <b>4.028</b>                                  | <b>0.000</b>       | <b>4.028</b>         | <b>5.380</b>                                                                         | <b>4.270</b>                               | <b>3.622</b>   | <b>2.616</b>               | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                    |                    |                |                |                                               |                    |                      |                                                                                      |                                            |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                         | -                  | -              | 0.010          | 0.005                                         | -                  | 0.005                | 0.007                                                                                | -                                          | -              | -                          | -                  | 0.022             |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                     | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                    | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                         | -                  | -              | -              | -                                             | -                  | -                    | -                                                                                    | -                                          | -              | -                          | -                  | -                 |

**Description:**

1U030: Automatic Identification System (AIS) is required for safety of navigation for all surface ships and submarines. AIS is a maritime Very High Frequency (VHF) communication system, which allows ships to exchange navigation, ship identification, and cargo information machine-to-machine via VHF transponder. The AIS capability provides Navy ships with the ability to rapidly identify and track commercial shipping, which significantly increases the Navy's ability to distinguish between normal and suspicious merchant ships headed towards United States and allied ports around the globe. AIS provides critical track data to the Common Operational Picture (COP) on surface ships, AN/BYG-1 Combat System on submarines, Global Command and Control System-Maritime (GCCS-M) on Force level ships, and Global Command and Control System-Joint (GCCS-J) at Fleet Maritime Operations Center (MOC)s for publishing AIS data to the Maritime Domain Awareness (MDA) Data Sharing Community of Interest. The AIS submarine configuration provides an interface to the AN/BYG-1 Combat System and Encrypted AIS capability that is currently not available on other AIS variants. This capability dramatically improves the Combatant Commanders' situational awareness and MDA data sharing capabilities in support of regional engagement, and tracking efforts against potential maritime terrorism threats. Funds will procure and install AIS systems for Navy ships, submarines and shore sites consisting of a combination of modified Commercial Off-The-Shelf (COTS) and government/commercial software, such as omni-directional VHF, Global Positioning System antennas, AIS transponders, displays and associated cables, servers, power supplies, laptop computers, junction boxes, switches and radio frequency couplers. Without this configuration of AIS, Navy submarines will not be able to see encrypted AIS track data and will increase the risk of collisions.

[P40A / Combat Workstation - Procurement]: The combat workstation is a ruggedized Panasonic Toughbook (CF-54) that provides AIS message data for mission planning.

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------|-----------------------------------------------|-----------------------|----------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                             |                    |                                               |                       |                                              |                                                                                      |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2361 / Automatic Identification System (AIS) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                                           |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                    |                                               |                       |                                              |                                                                                      |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                       | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Title*</b>                               | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                         | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1U030 Automatic Identification System (AIS) | P-5a               |                                               |                       | - / 4.658                                    | - / 0.764                                                                            | - / 0.510                                    | - / 4.028                                    | - / -                                        | - / 4.028                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Total Gross/Weapon System Cost</b>       |                    |                                               |                       | <b>- / 4.658</b>                             | <b>- / 0.764</b>                                                                     | <b>- / 0.510</b>                             | <b>- / 4.028</b>                             | <b>- / 0.000</b>                             | <b>- / 4.028</b>                             |
| <p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                    |                                               |                       |                                              |                                                                                      |                                              |                                              |                                              |                                              |
| <p><b>Justification:</b></p> <p>The Navy increased the AIS program budget to begin design/integration efforts to field the AIS capability on Nuclear Command, Control, and Communications (NC3) mission capable Ohio class (SSBN) submarines. The need for AIS system is especially important for SSBN submarines, which have limited maneuverability during strategic patrol. The AIS Submarine configuration provides situational awareness (to include encrypted AIS message traffic from US Coast Guard vessels) to the SSBN Commanding Officer during time constrained ascents to communications depth, thereby significantly reducing the risk of a close-aboard contact situation which has occurred in the past, impacting the already limited resource of these SSBN submarines.</p> <p>Additional funding is to implement United States Fleet Forces Command (USFFC) Comprehensive review recommendations for adding an AIS Workstation in Combat Information Center (CIC) on Surface Ships. An AIS Workstation in CIC will allow AIS data to be correlated with information from other sources such as RADAR in CIC resulting in improved situation awareness and mission planning capability. Non-recurring cost associated with network and shipboard certification requirements. Updating the AIS architecture to integrate an additional AIS Workstation into the Combat Information Center (CIC) will include Non-Recurring Engineering (NRE) costs associated with the Ship Modernization process such as Engineering Change and Ship Change documentation, Interactive Electronic Technical Manual (IETM) updates, etc. There are 26 Ship Class drawings that need to be updated to detail where and how the new laptop will be installed in CIC, to include how it will be mounted and interface definitions for network, power, etc. The new laptop is an added interface to the AIS architecture that requires End to End Integration testing and AI SIT network validation testing and an updated ATO.</p> <p>The FY19 funds provide for the procurement of five AIS submarine systems and forty-four Combat Workstations and associated Design Services Allocation; integration testing to support AIS installations on SSBN class submarines and installation funding for two submarines. The AIS Cyber hardening effort begins in FY19. Since this modernization effort is required on all platforms, it requires ship class drawings for 26 different classes of ships. The Cyber Ship Alteration (SHIPALT) effort in FY19 is non-recurring.</p> <p>In FY19 funding was realigned from OPN BLI 2361 AIS to OMN 1C1C (Combat Communications and Electronic Warfare) to properly fund integration and sustainment of a cyber hardening capability for AIS.</p> <p>AIS procurement unit cost has increased from FY18 to FY19 due to material cost increases. The material cost of the nickel connector components of the AIS system increased from \$10k to \$20k. The only other material alternative that meets EMC/EMI requirements are Stainless Steel connectors at a much higher cost.</p> |                                             |                    |                                               |                       |                                              |                                                                                      |                                              |                                              |                                              |                                              |



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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            | Date: February 2018                                                    |                  |            |                   |                  |            |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------|------------------|------------|-------------------|-------------------------------------------------------------------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|------------------------------------------------------------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                |                  |            |                   | P-1 Line Item Number / Title:<br>2361 / Automatic Identification System (AIS) |            |                   |                  |            |                   |                  |            | Aggregated Items Title:<br>1U030 Automatic Identification System (AIS) |                  |            |                   |                  |            |                   |
| Item Number / Title [DODIC]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ID CD | MDAP/MAIS Code | Prior Years      |            |                   | FY 2017                                                                       |            |                   | FY 2018          |            |                   | FY 2019 Base     |            |                                                                        | FY 2019 OCO      |            |                   | FY 2019 Total    |            |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)                                                              | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                                      | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| 1) 1U030 Automatic Identification Systems (AIS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| 1.1) AIS - Procurement <sup>(1)(†)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A     |                | 64.267           | 15         | 0.964             | 80.000                                                                        | 1          | 0.080             | 80.000           | 2          | 0.160             | 90.000           | 5          | 0.450                                                                  | -                | -          | -                 | 90.000           | 5          | 0.450             |
| 1.2) Engineering Change Proposal <sup>(2)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A     |                | -                | -          | -                 | -                                                                             | -          | 0.162             | -                | -          | 0.161             | -                | -          | 0.551                                                                  | -                | -          | -                 | -                | -          | 0.551             |
| 1.4) Combat Workstation - Procurement <sup>(†)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A     |                | -                | -          | -                 | -                                                                             | -          | -                 | -                | -          | -                 | 4.803            | 44         | 0.211                                                                  | -                | -          | -                 | 4.803            | 44         | 0.211             |
| Subtotal: 1) 1U030 Automatic Identification Systems (AIS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |                | -                | -          | 0.964             | -                                                                             | -          | 0.242             | -                | -          | 0.321             | -                | -          | 1.212                                                                  | -                | -          | -                 | -                | -          | 1.212             |
| 2) Installations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| 2.1) AIS - Installation <sup>(3)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A     |                | -                | -          | 2.750             | -                                                                             | -          | -                 | -                | -          | 0.150             | -                | -          | 0.406                                                                  | -                | -          | -                 | -                | -          | 0.406             |
| Subtotal: 2) Installations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                | -                | -          | 2.750             | -                                                                             | -          | -                 | -                | -          | 0.150             | -                | -          | 0.406                                                                  | -                | -          | -                 | -                | -          | 0.406             |
| 3) Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| 3.1) Production Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A     |                | -                | -          | 0.694             | -                                                                             | -          | 0.016             | -                | -          | 0.019             | -                | -          | 0.019                                                                  | -                | -          | -                 | -                | -          | 0.019             |
| 3.2) AIS - DSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | A     |                | -                | -          | 0.250             | -                                                                             | -          | 0.506             | -                | -          | 0.020             | -                | -          | 0.115                                                                  | -                | -          | -                 | -                | -          | 0.115             |
| 3.4) Seawolf SHIPALT Update (R5) <sup>(4)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A     |                | -                | -          | -                 | -                                                                             | -          | -                 | -                | -          | -                 | -                | -          | 0.143                                                                  | -                | -          | -                 | -                | -          | 0.143             |
| 3.5) Cyber & CR SHIPALT (Non-recurring) <sup>(5)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A     |                | -                | -          | -                 | -                                                                             | -          | -                 | -                | -          | -                 | -                | -          | 2.133                                                                  | -                | -          | -                 | -                | -          | 2.133             |
| Subtotal: 3) Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                | -                | -          | 0.944             | -                                                                             | -          | 0.522             | -                | -          | 0.039             | -                | -          | 2.410                                                                  | -                | -          | -                 | -                | -          | 2.410             |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                | -                | -          | 4.658             | -                                                                             | -          | 0.764             | -                | -          | 0.510             | -                | -          | 4.028                                                                  | -                | -          | -                 | -                | -          | 4.028             |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| (†) indicates the presence of a P-5a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| Footnotes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| (1) FY19 funding supports the procurement of one SEAWOLF submarine and four submarine class systems for Ship, Submersible, Ballistic, Nuclear (SSBN)submarines. AIS procurement unit cost has increased from FY18 to FY19 due to material cost increases. The delta in per unit installations costs is driven by the switch in procurements from AIS (V)3 system installed on Los Angeles Class submarines to the AIS (V)9 system that is required for installation on Ohio Class submarines. The higher cost of the AIS (V)9 system is largely due to a recent 100% cost increase in price for the nickel connectors that are required to meet submarine EMI/EMC requirements. The only other material alternative that meets EMC/EMI requirements are Stainless Steel connectors at a much higher cost. |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| (2) In FY19, AIS will be updating the architecture to integrate an additional AIS Workstation into the Combat Information Center (CIC) will include Non-Recurring Engineering (NRE) costs associated with the Ship Modernization process such as Engineering Change and Ship Change documentation, Interactive Electronic Technical Manual (IETM) updates, etc. The new laptop is an added interface to the AIS architecture that requires End to End Integration testing and AI SIT network validation testing and an updated ATO.                                                                                                                                                                                                                                                                       |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| (3) Design Services Allocation (DSA) and Installation costs vary depending on the submarine class and hull being installed on and the location of the installation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |
| (4) Prior to the first Seawolf class install in FY20, the Ship Alteration (SHIPALT) 4515 drawings will be modified in FY19 to reflect the changes to the SAAB R5 transponder and their modifications that have been incorporated into the AIS system since the SHIPALT drawings were drafted in 2011.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                |                  |            |                   |                                                                               |            |                   |                  |            |                   |                  |            |                                                                        |                  |            |                   |                  |            |                   |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |                                                                               | Date: February 2018                                                    |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 5    | P-1 Line Item Number / Title:<br>2361 / Automatic Identification System (AIS) | Aggregated Items Title:<br>1U030 Automatic Identification System (AIS) |

<sup>(5)</sup> The AIS Cyber hardening effort begins in FY19. Since this modernization effort is required on all platforms, it requires ship class drawings for 26 different classes of ships. The class drawings will also be updated to include detail where and how the new laptop will be installed in Combat Information Center (CIC), to include how it will be mounted and interface definitions for network, power, etc. The Cyber and CIC Ship Alteration (SHIPALT) effort in FY19 is non-recurring.

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |             |      |                                    |                                                                                      |                 |               |                              |               | <b>Date:</b> February 2018                                              |                        |                               |                   |
|---------------------------------------------------------------------------------|-------------|------|------------------------------------|--------------------------------------------------------------------------------------|-----------------|---------------|------------------------------|---------------|-------------------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 5 |             |      |                                    | <b>P-1 Line Item Number / Title:</b><br>2361 / Automatic Identification System (AIS) |                 |               |                              |               | <b>Aggregated Items:</b><br>1U030 Automatic Identification System (AIS) |                        |                               |                   |
| Item Number / Title [DODIC]                                                     | O<br>C<br>O | FY   | Contractor and Location            | Method/Type<br>or<br>Funding Vehicle                                                 | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$ K)                                                     | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>1) 1U030 Automatic Identification Systems (AIS)</b>                          |             |      |                                    |                                                                                      |                 |               |                              |               |                                                                         |                        |                               |                   |
| 1.1) AIS - Procurement <sup>(1)</sup>                                           |             | 2017 | SRC / Atlanta, GA                  | C / FFP                                                                              | SSC Atlantic    | Nov 2016      | Sep 2017                     | 1             | 80.000                                                                  | Y                      |                               |                   |
| 1.1) AIS - Procurement <sup>(1)</sup>                                           |             | 2018 | SRC / Atlanta, GA                  | C / FFP                                                                              | SSC Atlantic    | Nov 2017      | Sep 2018                     | 2             | 80.000                                                                  | Y                      |                               |                   |
| 1.1) AIS - Procurement <sup>(1)</sup>                                           |             | 2019 | SRC / Atlanta, GA                  | C / FFP                                                                              | SSC Atlantic    | Nov 2018      | Sep 2019                     | 5             | 90.000                                                                  | Y                      |                               |                   |
| 1.4) Combat Workstation - Procurement                                           |             | 2019 | Panasonic Corporation / Newark, NJ | C / FFP                                                                              | ** NO PCO **    | Nov 2018      | May 2019                     | 44            | 4.803                                                                   | Y                      |                               |                   |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|-------------------------------------------------------|--------------|-------------|---------------------------------------------------------------------------|-------------------------------------|---------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |                                                       |              |             |                                                                           |                                     | Date: February 2018 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |                                                       |              |             | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |                                     |                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         | Program Elements for Code B Items: 0607658N, 0603658N |              |             |                                                                           | Other Related Program Elements: N/A |                     |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Prior Years | FY 2017 | FY 2018                                               | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                             | FY 2020                             | FY 2021             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           | -       | -                                                     | -            | -           | -                                                                         | -                                   | -                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 815.776     | 17.965  | 23.892                                                | 44.173       | 0.000       | 44.173                                                                    | 32.132                              | 31.827              | 32.419  | 33.127  | 31.641      | 1,062.952  |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -                                                     | -            | -           | -                                                                         | -                                   | -                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 815.776     | 17.965  | 23.892                                                | 44.173       | 0.000       | 44.173                                                                    | 32.132                              | 31.827              | 32.419  | 33.127  | 31.641      | 1,062.952  |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -                                                     | -            | -           | -                                                                         | -                                   | -                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 815.776     | 17.965  | 23.892                                                | 44.173       | 0.000       | 44.173                                                                    | 32.132                              | 31.827              | 32.419  | 33.127  | 31.641      | 1,062.952  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -           | 1.078   | 1.492                                                 | 0.831        | -           | 0.831                                                                     | 2.153                               | 0.920               | 0.789   | 0.576   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -           | -       | -                                                     | -            | -           | -                                                                         | -                                   | -                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | -       | -                                                     | -            | -           | -                                                                         | -                                   | -                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |
| The FY 2019 funding request was reduced by \$.193 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |
| Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture capable of fire control quality. CEC distributes sensor data from each ship and aircraft, or cooperating unit (CU), to all other CUs in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate gridlocking between CUs. Each CU independently employs high capacity, parallel processing and advanced algorithms to combine all distributed sensor data into a fire control quality track picture which is the same for all CUs. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. CEC significantly improves our Battle Force defense in depth, including both local area and ship defense capabilities against current and future AAW threats. Moreover, CEC provides critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment.                       |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |
| CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. The DDS encodes and distributes ownship sensor and engagement data and is a high capacity, jam resistant, directive system providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that is able to process force levels of data in near real-time. This data is passed to the ship's combat system as high quality data for which the ship can cue its onboard sensors or use the data to engage targets without actually tracking them. The Navy has begun implementation of a Pre-Planned Product Improvement (P3I) approach to modify the current equipment to meet reduced size, weight, cost, power and cooling objectives. This P3I approach also supports continuity for interoperability improvements and program protection, as well as supporting open architecture initiatives and comms independence. P3I will provide hardware which complies with Category 3 Open Architecture Core Environment (OACE) standards with rehosted existing software, which will be fielded fleet-wide to allow affordable replacement of obsolete computing system components and eliminate dependencies on "closed" equipment, operating systems, and middleware. |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |
| A family of antennas approach will be used to satisfy CEC requirements with lower life cycle costs (procurement, installation, and maintenance) and reduced weight (on mast and below deck). These antennas enable future capability as well as providing a solution extensible to additional platforms. A competitive contract for Common Array Block (CAB) antenna development and production was awarded late FY13. CEC is planned for shipboard installations at various Naval and commercial shipyards aboard CG/CG Mod, DDG/DDG Mod, CV/CVN, LPD, LHD, DDG 1000, and LHA ship classes during scheduled ship availability periods and at land based test sites (LBTS).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |         |                                                       |              |             |                                                                           |                                     |                     |         |         |             |            |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                        |                                                       | Date: February 2018                                                       |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                     |                                                       | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                 | Program Elements for Code B Items: 0607658N, 0603658N | Other Related Program Elements: N/A                                       |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                     |                                                       |                                                                           |
| [P40A / UC002 - AN/UYQ-70 DISPLAY]: This is a sunk cost to fund the procurement of the AN/UYQ-70 display system for use and integration with the CEC system.                                                                                                                                                      |                                                       |                                                                           |
| [P40A / UC004 - ECP/KIT PROCUREMENT]: These funds are for the procurement and installation of Engineering Change Proposals (ECPs)(AN/USG-2 to AN/USG-2B upgrades/AN/USG-2A to AN/USG-2B upgrades) Field Change Kits to address CEC parts obsolescence associated with interfacing systems on multiple platforms.  |                                                       |                                                                           |
| [P40A / UC005 - NON-RECURRING DEPOT COST]: This is a sunk cost to establish a depot for the CEC system.                                                                                                                                                                                                           |                                                       |                                                                           |
| [P40A / UC006 - VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING]: This is a sunk cost to fund VISTA training related to the CEC system.                                                                                                                                                        |                                                       |                                                                           |
| [P40A / UC008 - SUPPLY SUPPORT]: This is a sunk cost for Supply Support for the CEC system.                                                                                                                                                                                                                       |                                                       |                                                                           |
| [P40A / UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)]: Funds are for the procurement of Signal Data Processors (SDP) backfits at Land Based Test Sites (LBTSS). There are no installation costs associated with these procurements because the installations will be performed by employees at the LBTSS. |                                                       |                                                                           |
| [P40A / UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)]: Funds are for the procurement of AN/USG-2B hardware conversion kits for the CEC AN/USG-2 system configuration.                                                                                                                                    |                                                       |                                                                           |
| [P40A / AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)]: FY 19 - Added procurement quantity of 5 units for Mode 5 IFF Acceleration                                                                                                                                                                                 |                                                       |                                                                           |
| [P40A / UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)]: Funds are for the procurement of AN/USG-2B hardware conversion kits for the AN/USG-2A CEC system configuration.                                                                                                                                  |                                                       |                                                                           |
| [P40A / UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)]: Funds are for the procurement of AN/USG-2B hardware conversion kits for CEC Land Based Test Sites.                                                                                                                                                    |                                                       |                                                                           |
| [P40A / UC830 - PRODUCTION ENGR. SUPPORT]: These funds are for production engineering support for CEC systems.                                                                                                                                                                                                    |                                                       |                                                                           |
| [P40A / UCCA1 - CONGRESSIONAL ADD]: These are Congressional add funds.                                                                                                                                                                                                                                            |                                                       |                                                                           |
| [P3A / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)]: These funds are for the procurement of CEC to backfit CG, DDG, CV/CVN, and LHD ship classes, as well as Land Based Test Sites (LBTSS).                                                                                          |                                                       |                                                                           |
| [P3A - 2 / UC003 - PAAA BACKFIT KITS]: These funds are for the procurement of Planar Antenna Array Assembly (PAAA) backfit kits.                                                                                                                                                                                  |                                                       |                                                                           |
| [P3A - 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)]: Funds are for the procurement of Signal Data Processors (SDP) backfits.                                                                                                                                                                      |                                                       |                                                                           |
| [P3A - 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)]: Funds are for the procurement of Signal Data Processors (SDP) backfits for AN/USG-2A equipment.                                                                                                                                            |                                                       |                                                                           |
| [P3A - 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD]: Funds are for the procurement of Common Array Block (CAB) antennas for shipboard AN/USG-2B systems.                                                                                                                                             |                                                       |                                                                           |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------|--|----------------------------------------------------------------------------------|--------------------------------------------|--|--|--|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                    |  |  |                                                              |  | <b>Date:</b> February 2018                                                       |                                            |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment |  |  |                                                              |  | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                                            |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                             |  |  | <b>Program Elements for Code B Items:</b> 0607658N, 0603658N |  |                                                                                  | <b>Other Related Program Elements:</b> N/A |  |  |  |

**Line Item MDAP/MAIS Code:** N/A

| Exhibits Schedule |                                                                                      |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|--------------------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                               | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a             | COOPERATIVE ENGAGEMENT CAPABILITY                                                    | P-5a        |       |                | - / 274.421                           | - / 8.261                             | - / 11.235                            | - / 12.998                            | - / -                                 | - / 12.998                            |
| P-3a              | 1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B) (SGAAW) |             |       |                | - / 442.477                           | - / 0.182                             | - / 7.472                             | - / 10.966                            | - / 0.000                             | - / 10.966                            |
| P-3a              | 2 / UC003 - PAAA BACKFIT KITS (SGAAW)                                                |             |       |                | - / 57.795                            | - / 2.644                             | - / 1.508                             | - / 2.355                             | - / 0.000                             | - / 2.355                             |
| P-3a              | 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) (SGAAW)                  |             |       |                | - / 24.183                            | - / 3.839                             | - / 3.285                             | - / 8.081                             | - / 0.000                             | - / 8.081                             |
| P-3a              | 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) (SGAAW)                |             |       |                | - / 13.500                            | - / 1.217                             | - / 0.392                             | - / 0.421                             | - / 0.000                             | - / 0.421                             |
| P-3a              | 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD (SGAAW)                     |             |       |                | - / 3.400                             | - / 1.822                             | - / 0.000                             | - / 9.352                             | - / 0.000                             | - / 9.352                             |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                                |             |       |                | - / 815.776                           | - / 17.965                            | - / 23.892                            | - / 44.173                            | - / 0.000                             | - / 44.173                            |

  

| Exhibits Schedule |                                                                                      |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
|-------------------|--------------------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                               | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a             | COOPERATIVE ENGAGEMENT CAPABILITY                                                    | P-5a        |       |                | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| P-3a              | 1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B) (SGAAW) |             |       |                | - / 2.047                             | - / 3.800                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 466.944                           |
| P-3a              | 2 / UC003 - PAAA BACKFIT KITS (SGAAW)                                                |             |       |                | - / 1.211                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 65.513                            |
| P-3a              | 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) (SGAAW)                  |             |       |                | - / 2.666                             | - / 2.317                             | - / 1.533                             | - / 0.000                             | - / 0.000                             | - / 45.904                            |
| P-3a              | 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) (SGAAW)                |             |       |                | - / 0.804                             | - / 0.384                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 16.718                            |
| P-3a              | 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD (SGAAW)                     |             |       |                | - / 13.226                            | - / 18.120                            | - / 21.656                            | - / 21.739                            | - / 58.359                            | - / 147.674                           |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                                |             |       |                | - / 32.132                            | - / 31.827                            | - / 32.419                            | - / 33.127                            | - / 31.641                            | - / 1,062.952                         |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.  
 Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**  
 Funds are to procure hardware and provide associated support for the CEC system. Requirements are driven by planned procurements of CEC for LHD 2-6, Planar Antenna Array Assembly (PAAA) antennas, and Signal Data Processor (SDP) backfit kits. Increase to FY 18 requirements are to procure hardware in alignment with Fleet Modernization Procurement and Installation Plan for CEC Backfit to CG, DDG, CVN, and LHD ship classes as well as Land Based Test Sites (LBTS). Funding increase to support additional FY 19 requirements to accelerate procurement and installation of hardware required for Mode 5 Identification Friend/Foe (IFF) capability to the Fleet by 2020.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy             |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                | Date: February 2018 |                   |                |            |                   |  |
|-----------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|---------------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|-----------------------------------------------------------------|------------|-------------------|----------------|---------------------|-------------------|----------------|------------|-------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                |       |                |                |            |                   | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |            |                   |                |            |                   | Aggregated Items Title:<br>COOPERATIVE ENGAGEMENT<br>CAPABILITY |            |                   |                |                     |                   |                |            |                   |  |
| Item Number / Title [DODIC]                                                             | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                                   |            |                   | FY 2018        |            |                   | FY 2019 Base                                                    |            |                   | FY 2019 OCO    |                     |                   | FY 2019 Total  |            |                   |  |
|                                                                                         |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                            | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                  | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)          | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |  |
| 1) UC002 - AN/UYQ-70 DISPLAY                                                            |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 1.1) AN/UYQ-70 DISPLAY                                                                  | A     |                | -              | -          | 21.493            | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| Subtotal: 1) UC002 - AN/UYQ-70 DISPLAY                                                  |       |                | -              | -          | 21.493            | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| 2) UC004 - ECP/KIT PROCUREMENT <sup>(1)</sup>                                           |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 2.1) ECP/KIT PROCUREMENT <sup>(2)</sup>                                                 | A     |                | -              | -          | 100.542           | -                                                                         | -          | 2.993             | -              | -          | 3.279             | -                                                               | -          | 3.503             | -              | -                   | -                 | -              | -          | 3.503             |  |
| Subtotal: 2) UC004 - ECP/KIT PROCUREMENT                                                |       |                | -              | -          | 100.542           | -                                                                         | -          | 2.993             | -              | -          | 3.279             | -                                                               | -          | 3.503             | -              | -                   | -                 | -              | -          | 3.503             |  |
| 3) UC005 - NON-RECURRING DEPOT COST                                                     |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 3.1) NON-RECURRING DEPOT SUPPORT                                                        | A     |                | -              | -          | 4.500             | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| Subtotal: 3) UC005 - NON-RECURRING DEPOT COST                                           |       |                | -              | -          | 4.500             | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| 4) UC006 - VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING           |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 4.1) VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING                 | A     |                | -              | -          | 0.700             | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| Subtotal: 4) UC006 - VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING |       |                | -              | -          | 0.700             | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| 5) UC008 - SUPPLY SUPPORT                                                               |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 5.1) SUPPLY SUPPORT                                                                     | A     |                | -              | -          | 6.094             | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| Subtotal: 5) UC008 - SUPPLY SUPPORT                                                     |       |                | -              | -          | 6.094             | -                                                                         | -          | -                 | -              | -          | -                 | -                                                               | -          | -                 | -              | -                   | -                 | -              | -          | -                 |  |
| 6) UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                                 |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS) <sup>(f)</sup>                        | A     |                | 405,846.15     | 13         | 5.276             | 227,154.00                                                                | 2          | 0.454             | 231,697.00     | 5          | 1.158             | 236,331.00                                                      | 1          | 0.236             | -              | -                   | -                 | 236,331.00     | 1          | 0.236             |  |
| Subtotal: 6) UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                       |       |                | -              | -          | 5.276             | -                                                                         | -          | 0.454             | -              | -          | 1.158             | -                                                               | -          | 0.236             | -              | -                   | -                 | -              | -          | 0.236             |  |
| 7) UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)                                |       |                |                |            |                   |                                                                           |            |                   |                |            |                   |                                                                 |            |                   |                |                     |                   |                |            |                   |  |
| 7.1) AN/USG-2B HARDWARE                                                                 | A     |                | 349,722.22     | 18         | 6.295             | 383,833.33                                                                | 1          | 0.384             | 391,600.00     | 3          | 1.175             | 399,545.00                                                      | 9          | 3.596             | -              | -                   | -                 | 399,545.00     | 9          | 3.596             |  |



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| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2019 Navy                                                                   |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                | <b>Date:</b> February 2018                                          |                   |                |            |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|----------------------------------------------------------------------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|---------------------------------------------------------------------|-------------------|----------------|------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                      |       |                |                |            |                   |                |            | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                |            |                   |                |            |                   |                | <b>Aggregated Items Title:</b><br>COOPERATIVE ENGAGEMENT CAPABILITY |                   |                |            |                   |
| Item Number / Title [DODIC]                                                                                                                          | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                                                                                  | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                                                     |                   | FY 2019 Total  |            |                   |
|                                                                                                                                                      |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                                                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                          | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| CONVERSION KITS (AN/USG-2) <sup>(3)(†)</sup>                                                                                                         |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |
| <b>Subtotal: 7) UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)</b>                                                                            |       |                | -              | -          | 6.295             | -              | -          | 0.384                                                                            | -              | -          | 1.175             | -              | -          | 3.596             | -              | -                                                                   | -                 | -              | -          | 3.596             |
| <b>8) UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)</b>                                                                                     |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |
| 8.1) AN/USG-2B HARDWARE CONVERSION KIT (AN/USG-2A) <sup>(†)</sup>                                                                                    | A     |                | 267,727.27     | 11         | 2.945             | 293,000.00     | 1          | 0.293                                                                            | 299,000.00     | 1          | 0.299             | 304,837.00     | 1          | 0.305             | -              | -                                                                   | -                 | 304,837.00     | 1          | 0.305             |
| <b>Subtotal: 8) UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)</b>                                                                           |       |                | -              | -          | 2.945             | -              | -          | 0.293                                                                            | -              | -          | 0.299             | -              | -          | 0.305             | -              | -                                                                   | -                 | -              | -          | 0.305             |
| <b>9) UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS) <sup>(4)</sup></b>                                                                           |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |
| 9.1) AN/USG-2B HARDWARE CONVERSION KITS (LBTS) <sup>(†)</sup>                                                                                        | A     |                | 367,200.00     | 5          | 1.836             | 386,509.00     | 2          | 0.773                                                                            | 394,300.00     | 5          | 1.972             | 402,124.00     | 1          | 0.402             | -              | -                                                                   | -                 | 402,124.00     | 1          | 0.402             |
| <b>Subtotal: 9) UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)</b>                                                                                |       |                | -              | -          | 1.836             | -              | -          | 0.773                                                                            | -              | -          | 1.972             | -              | -          | 0.402             | -              | -                                                                   | -                 | -              | -          | 0.402             |
| <b>10) UC830 - PRODUCTION ENGR. SUPPORT <sup>(5)</sup></b>                                                                                           |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |
| 10.1) PRODUCTION ENGR. SUPPORT <sup>(6)</sup>                                                                                                        | A     |                | -              | -          | 87.201            | -              | -          | 3.364                                                                            | -              | -          | 3.352             | -              | -          | 4.956             | -              | -                                                                   | -                 | -              | -          | 4.956             |
| <b>Subtotal: 10) UC830 - PRODUCTION ENGR. SUPPORT</b>                                                                                                |       |                | -              | -          | 87.201            | -              | -          | 3.364                                                                            | -              | -          | 3.352             | -              | -          | 4.956             | -              | -                                                                   | -                 | -              | -          | 4.956             |
| <b>11) UCCA1 - CONGRESSIONAL ADD</b>                                                                                                                 |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |
| 11.1) CONGRESSIONAL ADD                                                                                                                              | A     |                | -              | -          | 23.249            | -              | -          | -                                                                                | -              | -          | -                 | -              | -          | -                 | -              | -                                                                   | -                 | -              | -          | -                 |
| <b>Subtotal: 11) UCCA1 - CONGRESSIONAL ADD</b>                                                                                                       |       |                | -              | -          | 23.249            | -              | -          | -                                                                                | -              | -          | -                 | -              | -          | -                 | -              | -                                                                   | -                 | -              | -          | -                 |
| <b>12) UC6IN - NON-FMP INSTALLATION</b>                                                                                                              |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |
| 12.1) NON-FMP INSTALLATION                                                                                                                           | A     |                | -              | -          | 14.290            | -              | -          | -                                                                                | -              | -          | -                 | -              | -          | -                 | -              | -                                                                   | -                 | -              | -          | -                 |
| <b>Subtotal: 12) UC6IN - NON-FMP INSTALLATION</b>                                                                                                    |       |                | -              | -          | 14.290            | -              | -          | -                                                                                | -              | -          | -                 | -              | -          | -                 | -              | -                                                                   | -                 | -              | -          | -                 |
| <b>Total</b>                                                                                                                                         |       |                | -              | -          | 274.421           | -              | -          | 8.261                                                                            | -              | -          | 11.235            | -              | -          | 12.998            | -              | -                                                                   | -                 | -              | -          | 12.998            |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.<br><sup>(†)</sup> indicates the presence of a P-5a |       |                |                |            |                   |                |            |                                                                                  |                |            |                   |                |            |                   |                |                                                                     |                   |                |            |                   |

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| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                  | <b>Date:</b> February 2018                                             |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability | <b>Aggregated Items Title:</b><br>COOPERATIVE ENGAGEMENT<br>CAPABILITY |
| <b>Footnotes:</b><br>(1) These funds are for the procurement and installation of Engineering Change Proposals (ECPs)(AN/USG-2 to AN/USG-2B upgrades/AN/USG-2A to AN/USG-2B upgrades) Field Change Kits to address CEC parts obsolescence associated with interfacing systems on multiple platforms.<br>(2) Increased funding in FY 19 to account for CAB ECP planning costs. Increased funding in FY 23 to address CAB and SDP-S obsolescence.<br>(3) FY 19 - Added procurement quantity of 5 units for Mode 5 IFF Acceleration<br>(4) FY 18 requirements are for the procurement of additional AN/USG-2B hardware conversion kits for CEC Land Based Test Sites in order for hardware to current reflect Fleet configurations.<br>(5) These funds are for production engineering support for CEC systems.<br>(6) Increased funding in FY 19 to account for additional CAB production engineering planning costs. Increased funding in FY 22-23 to account for CAB and SDP-S hardware improvement initiatives. |                                                                                  |                                                                        |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |             |                      |                                                                           |                                      |                                  |               |                              | Date: February 2018                                       |                   |                        |                               |                   |
|--------------------------------------------------------------------------|-------------|----------------------|---------------------------------------------------------------------------|--------------------------------------|----------------------------------|---------------|------------------------------|-----------------------------------------------------------|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |             |                      | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |                                      |                                  |               |                              | Aggregated Items:<br>COOPERATIVE ENGAGEMENT<br>CAPABILITY |                   |                        |                               |                   |
| Item Number / Title [DODIC]                                              | O<br>C<br>O | FY                   | Contractor and Location                                                   | Method/Type<br>or<br>Funding Vehicle | Location of PCO                  | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each)                                             | Unit Cost<br>(\$) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 6) UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                  |             |                      |                                                                           |                                      |                                  |               |                              |                                                           |                   |                        |                               |                   |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2011                 | Sechan Electronics, Inc. / Lititz, PA                                     | C / IDIQ                             | Washington, DC                   | Dec 2011      | Jun 2013                     | 5                                                         | 450,000.00        | Y                      |                               | Dec 2010          |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2012                 | Sechan Electronics, Inc. / Lititz, PA                                     | SS / IDIQ                            | Washington, DC                   | Dec 2012      | Jun 2014                     | 3                                                         | 669,000.00        | Y                      |                               |                   |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2014                 | Sechan Electronics, Inc. / Lititz, PA                                     | SS / IDIQ                            | Washington, DC                   | May 2014      | Nov 2015                     | 3                                                         | 194,094.00        | Y                      |                               |                   |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2015                 | Sechan Electronics, Inc. / Lititz, PA                                     | SS / IDIQ                            | Washington, DC                   | May 2015      | Nov 2016                     | 2                                                         | 218,500.00        | Y                      |                               |                   |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2017 <sup>(7)</sup>  | TBD / TBD                                                                 | C / IDIQ                             | Washington, DC<br>Washington, DC | May 2017      | Nov 2018                     | 2                                                         | 227,154.00        | Y                      |                               | Aug 2016          |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2018                 | TBD / TBD                                                                 | SS / IDIQ                            | Washington, DC                   | May 2018      | Nov 2019                     | 5                                                         | 231,697.00        | Y                      |                               |                   |
| 6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)                        |             | 2019                 | TBD / TBD                                                                 | C / TBD                              | ** NO PCO **                     | Oct 2018      | Oct 2019                     | 1                                                         | 236,331.00        | N                      |                               |                   |
| 7) UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)                 |             |                      |                                                                           |                                      |                                  |               |                              |                                                           |                   |                        |                               |                   |
| 7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2) (3)                   |             | 2014 <sup>(8)</sup>  | Raytheon / St. Petersburg, FL                                             | SS / FFP                             | Washington, DC                   | Apr 2014      | Jun 2015                     | 8                                                         | 361,750.00        | Y                      |                               |                   |
| 7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2) (3)                   |             | 2015 <sup>(9)</sup>  | DRS Technologies / Johnstown, PA                                          | C / FFP                              | Washington, DC                   | Aug 2015      | Oct 2016                     | 8                                                         | 369,000.00        | Y                      |                               |                   |
| 7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2) (3)                   |             | 2016 <sup>(10)</sup> | DRS Technologies / Johnstown, PA                                          | SS / FFP                             | Washington, DC                   | Jul 2016      | Sep 2017                     | 2                                                         | 224,500.00        | Y                      |                               |                   |
| 7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2) (3)                   |             | 2017 <sup>(11)</sup> | DRS Technologies / Johnstown, PA                                          | SS / FFP                             | Washington, DC                   | Mar 2017      | May 2018                     | 1                                                         | 383,833.33        | Y                      |                               |                   |
| 7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2) (3)                   |             | 2018 <sup>(12)</sup> | DRS Technologies / Johnstown, PA                                          | SS / FFP                             | Washington, DC                   | Mar 2018      | May 2019                     | 3                                                         | 391,600.00        | Y                      |                               |                   |
| 8) UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)                |             |                      |                                                                           |                                      |                                  |               |                              |                                                           |                   |                        |                               |                   |

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |                                                                                  | <b>Date:</b> February 2018                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability | <b>Aggregated Items:</b><br>COOPERATIVE ENGAGEMENT<br>CAPABILITY |

| Item Number / Title [DODIC]                                 | O<br>C<br>O | FY                   | Contractor and Location          | Method/Type<br>or<br>Funding Vehicle | Location of PCO                 | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
|-------------------------------------------------------------|-------------|----------------------|----------------------------------|--------------------------------------|---------------------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| 8.1) AN/USG-2B HARDWARE<br>CONVERSION KIT (AN/USG-2A)       |             | 2014 <sup>(13)</sup> | Raytheon / St. Petersburg, FL    | SS / FFP                             | Washington, DC                  | Apr 2014      | Jun 2015                     | 7             | 276,060.00        | Y                      |                               |                   |
| 8.1) AN/USG-2B HARDWARE<br>CONVERSION KIT (AN/USG-2A)       |             | 2015 <sup>(14)</sup> | DRS Technologies / Johnstown, PA | C / FFP                              | Washington, DC                  | Aug 2015      | Oct 2016                     | 3             | 281,666.67        | Y                      |                               |                   |
| 8.1) AN/USG-2B HARDWARE<br>CONVERSION KIT (AN/USG-2A)       |             | 2016 <sup>(15)</sup> | DRS Technologies / Johnstown, PA | SS / FFP                             | Washington, DC                  | Jul 2016      | Sep 2017                     | 1             | 168,000.00        | Y                      |                               |                   |
| 8.1) AN/USG-2B HARDWARE<br>CONVERSION KIT (AN/USG-2A)       |             | 2017 <sup>(16)</sup> | DRS Technologies / Johnstown, PA | SS / FFP                             | Washington, DC                  | Mar 2017      | May 2018                     | 1             | 293,000.00        | Y                      |                               |                   |
| 8.1) AN/USG-2B HARDWARE<br>CONVERSION KIT (AN/USG-2A)       |             | 2018 <sup>(17)</sup> | DRS Technologies / Johnstown, PA | SS / FFP                             | Washington, DC                  | Mar 2018      | May 2019                     | 1             | 299,000.00        | Y                      |                               |                   |
| <b>9) UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)</b> |             |                      |                                  |                                      |                                 |               |                              |               |                   |                        |                               |                   |
| 9.1) AN/USG-2B HARDWARE<br>CONVERSION KITS (LBTS)           |             | 2014 <sup>(18)</sup> | Raytheon / St. Petersburg, FL    | SS / FFP                             | Washington, DC                  | Apr 2014      | Jun 2015                     | 3             | 364,410.00        | Y                      |                               |                   |
| 9.1) AN/USG-2B HARDWARE<br>CONVERSION KITS (LBTS)           |             | 2015 <sup>(19)</sup> | DRS Technologies / Johnstown, PA | C / FFP                              | Washington,<br>DCWashington, DC | Aug 2015      | Oct 2016                     | 2             | 371,500.00        | Y                      |                               |                   |
| 9.1) AN/USG-2B HARDWARE<br>CONVERSION KITS (LBTS)           |             | 2017                 | DRS Technologies / Johnstown, PA | SS / FFP                             | Washington, DC                  | Mar 2017      | May 2018                     | 2             | 386,509.00        | Y                      |                               |                   |
| 9.1) AN/USG-2B HARDWARE<br>CONVERSION KITS (LBTS)           |             | 2018                 | DRS Technologies / Johnstown, PA | SS / FFP                             | Washington, DC                  | Mar 2018      | May 2019                     | 5             | 394,300.00        | Y                      |                               |                   |

**Footnotes:**

<sup>(7)</sup> This will be a competitively awarded contract 3Q FY17 with options in FY18.

<sup>(8)</sup> The last option year under the current CEC Production contract was FY14. Two additional option years have been added to the contract for FY15 and FY16.

<sup>(9)</sup> Procurement of this equipment transitioned to a new Production contract starting in FY15.

<sup>(10)</sup> 2016 - Option Year 1 of DRS Production Contract

<sup>(11)</sup> 2017- Option Year 2 of DRS Production Contract

<sup>(12)</sup> 2018- Option Year 3 of DRS Production Contract

<sup>(13)</sup> The last option year under the current CEC Production contract was FY14. Two additional option years have been added to the contract for FY15 and FY16.

<sup>(14)</sup> Procurement of this equipment transitioned to a new Production contract starting in FY15.

<sup>(15)</sup> 2016 - Option Year 1 of DRS Production Contract

<sup>(16)</sup> 2017 - Option Year 2 of DRS Production Contract

<sup>(17)</sup> 2018 - Option Year 3 of DRS Production Contract

<sup>(18)</sup> The last option year under the current CEC Production contract was FY14. Two additional option years have been added to the contract for FY15 and FY16.

<sup>(19)</sup> Procurement of this equipment transitioned to a new Production contract starting in FY15.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                                  |  | <b>Date:</b> February 2018 |  |                                                                                                                           |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |  |                            |  | <b>Modification Number / Title:</b><br>1 / UC001 - COOPERATIVE<br>ENGAGEMENT TRANSMISSION<br>PROCESSING SET (USG-2/2A/2B) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 442.477     | 0.182   | 7.472   | 10.966       | 0.000       | 10.966          | 2.047   | 3.800   | 0.000   | 0.000   | 0.000       | 466.944 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 442.477     | 0.182   | 7.472   | 10.966       | 0.000       | 10.966          | 2.047   | 3.800   | 0.000   | 0.000   | 0.000       | 466.944 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 442.477     | 0.182   | 7.472   | 10.966       | 0.000       | 10.966          | 2.047   | 3.800   | 0.000   | 0.000   | 0.000       | 466.944 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

Strike Group Anti-Air Warfare (AAW) Improvement. These funds are for the procurement of CEC to backfit CG, DDG, CV/CVN, and LHD ship classes, as well as various Land Based Test Sites (LBTs).

[COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)] Increases in cost to the USG-2B system from FY 16 to FY 18 is attributed to procuring a new type of hardware - a Common Block Array (CAB) Antenna vice PAAA antenna for LHD class ships in FY 18.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                 |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                                                |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                            |                                           |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>1 / UC001 - COOPERATIVE<br>ENGAGEMENT TRANSMISSION<br>PROCESSING SET (USG-2/2A/2B) |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                    |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                                                           |                                           |                                           |  |
| <b>Models of Systems Affected:</b> UC001 COOPERATIVE<br>ENGAGEMENT TRANSMISSION PROCESSING SET<br>(CETPS) (AN/USG-2/2A/2B) |                                           |                                           |                                           |                                           | <b>Modification Type:</b> SGAAW                                                  |                                           |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b> 0603755N, 0603658N                                                                          |                                           |                                           |  |
| <b>Financial Plan</b>                                                                                                      | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                   | <b>FY 2019<br/>OCO</b>                                                           | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                                                            | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                                                            | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                        | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                                                 | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                                         |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |
| <b>Modification Item 1 of 1:</b> UC001 - COOPERATIVE<br>ENGAGEMENT TRANSMISSION PROCESSING SET<br>(USG-2/2A/2B)            |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |
| B Kits                                                                                                                     |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |
| Recurring                                                                                                                  |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |
| 1.1.1) COOPERATIVE ENGAGEMENT<br>TRANSMISSION PROCESSING SET (USG-2/2A/2B) -<br>NonOrganic <sup>(20)</sup>                 | 49 / 367.975                              | - / -                                     | 1 / 5.276                                 | 2 / 10.784                                | - / -                                                                            | 2 / 10.784                                | - / -                                     | - / -                                     | - / -                                     | - / -                                                                                                                     | - / -                                     | 52 / 384.035                              |  |
| <b>Subtotal: Recurring</b>                                                                                                 | - / 367.975                               | - / -                                     | - / 5.276                                 | - / 10.784                                | - / -                                                                            | - / 10.784                                | - / -                                     | - / -                                     | - / -                                     | - / -                                                                                                                     | - / 0.000                                 | - / 384.035                               |  |
| <b>Subtotal: UC001 - COOPERATIVE ENGAGEMENT<br/>TRANSMISSION PROCESSING SET (USG-2/2A/2B)</b>                              | 49 / 367.975                              | - / -                                     | 1 / 5.276                                 | 2 / 10.784                                | - / -                                                                            | 2 / 10.784                                | - / -                                     | - / -                                     | - / -                                     | - / -                                                                                                                     | - / -                                     | 52 / 384.035                              |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                                       | - / 367.975                               | - / -                                     | - / 5.276                                 | - / 10.784                                | - / -                                                                            | - / 10.784                                | - / -                                     | - / -                                     | - / -                                     | - / -                                                                                                                     | - / 0.000                                 | - / 384.035                               |  |
| <b>Installation</b>                                                                                                        |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |
| <b>Modification Item 1 of 1:</b> UC001 - COOPERATIVE<br>ENGAGEMENT TRANSMISSION PROCESSING SET<br>(USG-2/2A/2B)            | - / 74.502                                | - / 0.182                                 | - / 2.196                                 | - / 0.182                                 | - / 0.000                                                                        | - / 0.182                                 | - / 2.047                                 | - / 3.800                                 | - / 0.000                                 | - / 0.000                                                                                                                 | - / 0.000                                 | - / 82.909                                |  |
| <b>Subtotal: Installation</b>                                                                                              | - / 74.502                                | - / 0.182                                 | - / 2.196                                 | - / 0.182                                 | - / -                                                                            | - / 0.182                                 | - / 2.047                                 | - / 3.800                                 | - / -                                     | - / -                                                                                                                     | - / 0.000                                 | - / 82.909                                |  |
| <b>Total</b>                                                                                                               |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                   | <b>442.477</b>                            | <b>0.182</b>                              | <b>7.472</b>                              | <b>10.966</b>                             | <b>0.000</b>                                                                     | <b>10.966</b>                             | <b>2.047</b>                              | <b>3.800</b>                              | <b>0.000</b>                              | <b>0.000</b>                                                                                                              | <b>0.000</b>                              | <b>466.944</b>                            |  |
|                                                                                                                            |                                           |                                           |                                           |                                           |                                                                                  |                                           |                                           |                                           |                                           |                                                                                                                           |                                           |                                           |  |

## UNCLASSIFIED

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                       |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |           |                                |           |                                |                                      |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / UC001 - COOPERATIVE<br>ENGAGEMENT TRANSMISSION<br>PROCESSING SET (USG-2/2A/2B) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | <b>MDAP/MAIS Code:</b>               |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: DRS Technologies                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | Manufacturer Location: Johnstown, PA |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 1                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | Production Leadtime (in Months): 18  |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                           |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           | Mar 2018                       |           |                                |           | Mar 2019                                                                         |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           | Sep 2019                       |           |                                |           | Sep 2020                                                                         |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> ALTERATION INSTALLATION TEAM (AIT):: Installation Name: COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSI                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                               |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                               |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                      | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                                            |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                        |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                            |            | 48 / 74.502                    |           | 0 / 0.182                      |           | 1 / 2.196                      |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | 0 / 0.000                      |           | 49 / 76.880                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.182                      |           | 0 / 0.000                                                                        |           | 0 / 0.182                      |           | 1 / 2.047                      |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | 0 / 0.000                      |           | 1 / 2.229                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | 2 / 3.800                      |           | - / -                          |           | - / -                                                                                                                     |           | 0 / 0.000                      |           | 2 / 3.800                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                            |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                  |            | 48 / 74.502                    |           | 0 / 0.182                      |           | 1 / 2.196                      |           | 0 / 0.182                      |           | 0 / 0.000                                                                        |           | 0 / 0.182                      |           | 1 / 2.047                      |                                      | 2 / 3.800                      |           | - / -                          |           | - / -                                                                                                                     |           | 0 / 0.000                      |           | 52 / 82.909                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                        | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                        |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                        | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                                                 | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                     | 48         | -                              | -         | -                              | -         | -                              | 1         | -                              | -         | -                                                                                | -         | -                              | -         | -                              | 1                                    | -                              | -         | -                              | 2         | -                                                                                                                         | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 52         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                    | 48         | -                              | -         | -                              | -         | -                              | 1         | -                              | -         | -                                                                                | -         | -                              | -         | -                              | 1                                    | -                              | -         | -                              | 2         | -                                                                                                                         | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 52         |
| <b>Footnotes:</b><br><sup>(20)</sup> Funds in FY 17 are required for installation planning activities in preparation for installation in FY 18. Funds in FY 19 are required for installation planning activities in preparation for installation in FY 20. Increased installation funding in FY 18 to account for increases in installation costs due to new contract firm fixed price cost structure. |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |         |                                                                           |             |               |                 |         | Date: February 2018                                           |         |             |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|---------------------------------------------------------------------------|-------------|---------------|-----------------|---------|---------------------------------------------------------------|---------|-------------|--------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |         | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |             |               |                 |         | Modification Number / Title:<br>2 / UC003 - PAAA BACKFIT KITS |         |             |        |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |                                                                           |             |               | MDAP/MAIS Code: |         |                                                               |         |             |        |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                              | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022                                                       | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -       | -                                                                         | -           | -             | -               | -       | -                                                             | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 57.795      | 2.644   | 1.508   | 2.355                                                                     | 0.000       | 2.355         | 1.211           | 0.000   | 0.000                                                         | 0.000   | 0.000       | 65.513 |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -       | -                                                                         | -           | -             | -               | -       | -                                                             | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 57.795      | 2.644   | 1.508   | 2.355                                                                     | 0.000       | 2.355         | 1.211           | 0.000   | 0.000                                                         | 0.000   | 0.000       | 65.513 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -       | -                                                                         | -           | -             | -               | -       | -                                                             | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 57.795      | 2.644   | 1.508   | 2.355                                                                     | 0.000       | 2.355         | 1.211           | 0.000   | 0.000                                                         | 0.000   | 0.000       | 65.513 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |         |                                                                           |             |               |                 |         |                                                               |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | -       | -       | -                                                                         | -           | -             | -               | -       | -                                                             | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -       | -                                                                         | -           | -             | -               | -       | -                                                             | -       | -           | -      |
| Description:<br>Strike Group Anti-Air Warfare (AAW) Improvement. The PAAA Backfit Kit procurements will be replaced with Common Array Block (CAB) - Shipboard Antenna procurements commencing in FY16. PAAA Backfit Kits are installed on CG, DDG, CVN, LPD, and LHD ship classes<br><br>[PAAA BACKFIT KITS] The 2 PAAA antennas being procured in FY15 and 1 PAAA being procured in FY16 will replace 3 older SBAA antennas currently in the Fleet. These SBAAAs are very expensive to maintain and some of the parts are becoming obsolete. PAAA Backfit Kits are installed on CG, DDG, CVN, LPD, and LHD ship classes |             |         |         |                                                                           |             |               |                 |         |                                                               |         |             |        |



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| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                |                                                                           |                                |                                |                                | Date: February 2018            |                                       |                                                               |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |                                |                                |                                | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |                                |                                |                                |                                |                                       | Modification Number / Title:<br>2 / UC003 - PAAA BACKFIT KITS |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                |                                       |                                                               |                                |                                |  |
| Models of Systems Affected: UC003 PAAA BACKFIT KITS                      |                                |                                |                                | Modification Type: SGAAW                                                  |                                |                                |                                |                                | Related RDT&E PEs: 0603755N, 0603658N |                                                               |                                |                                |  |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                               | FY 2023                                                       | To Complete                    | Total                          |  |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                              |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                       |                                                               |                                |                                |  |
| Modification Item 1 of 1: UC003 - PAAA BACKFIT KITS                      |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                       |                                                               |                                |                                |  |
| B Kits                                                                   |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                       |                                                               |                                |                                |  |
| Non-Recurring                                                            |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                       |                                                               |                                |                                |  |
| 1.1.1) PAAA BACKFIT KITS - NonOrganic <sup>(21)</sup>                    |                                | 13 / 43.312                    | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                                                         | - / -                          | 13 / 43.312                    |  |
| Subtotal: Non-Recurring                                                  |                                | - / 43.312                     | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                                                         | - / 0.000                      | - / 43.312                     |  |
| Subtotal: UC003 - PAAA BACKFIT KITS                                      |                                | 13 / 43.312                    | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                                                         | - / -                          | 13 / 43.312                    |  |
| Subtotal: Procurement, All Modification Items                            |                                | - / 43.312                     | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                                                         | - / 0.000                      | - / 43.312                     |  |
| Installation                                                             |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                       |                                                               |                                |                                |  |
| Modification Item 1 of 1: UC003 - PAAA BACKFIT KITS                      |                                | - / 14.483                     | - / 2.644                      | - / 1.508                                                                 | - / 2.355                      | - / 0.000                      | - / 2.355                      | - / 1.211                      | - / 0.000                             | - / 0.000                                                     | - / 0.000                      | - / 22.201                     |  |
| Subtotal: Installation                                                   |                                | - / 14.483                     | - / 2.644                      | - / 1.508                                                                 | - / 2.355                      | - / -                          | - / 2.355                      | - / 1.211                      | - / -                                 | - / -                                                         | - / 0.000                      | - / 22.201                     |  |
| Total                                                                    |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                       |                                                               |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                        |                                | 57.795                         | 2.644                          | 1.508                                                                     | 2.355                          | 0.000                          | 2.355                          | 1.211                          | 0.000                                 | 0.000                                                         | 0.000                          | 65.513                         |  |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------------|-----------|--------------------------------|-----------|---------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           | <b>Date:</b> February 2018     |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |           |                                |           |                                             |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / UC003 - PAAA BACKFIT KITS |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           | <b>MDAP/MAIS Code:</b>                      |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> UC003 - PAAA BACKFIT KITS                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: RAYTHEON <sup>(22)</sup>                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           | Manufacturer Location: ST. PETERSBURG, FL   |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 1                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           | Production Leadtime <i>(in Months)</i> : 18 |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                          |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                              |           |                                |           | <b>FY 2021</b>                 |           |                                                                      |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> ALTERATION INSTALLATION TEAM (AIT):: Installation Name: PAAA BACKFIT KITS                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                              |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                               |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                              |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                       |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                       |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)              |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                       |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                           |            | 9 / 14.483                     |           | 1 / 2.644                      |           | 1 / 1.508                      |           | 1 / 2.355                      |           | 0 / 0.000                                                                        |           | 1 / 2.355                      |           | 1 / 1.211                                   |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | 0 / 0.000                      |           | 13 / 22.201    |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                 |            | 9 / 14.483                     |           | 1 / 2.644                      |           | 1 / 1.508                      |           | 1 / 2.355                      |           | 0 / 0.000                                                                        |           | 1 / 2.355                      |           | 1 / 1.211                                   |           | - / -                          |           | - / -                          |           | - / -                                                                |           | - / -                          |           | 0 / 0.000                      |           | 13 / 22.201    |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                       | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                              |           |                                |           | <b>FY 2021</b>                 |           |                                                                      |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                       |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                        | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                   | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                            | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                    | 9          | -                              | -         | -                              | 1         | 1                              | -         | -                              | -         | -                                                                                | 1         | -                              | -         | -                                           | -         | -                              | 1         | -                              | -         | -                                                                    | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 13         |
| Out                                                                                                                                                                                                                                                                                                                   | 9          | -                              | -         | -                              | 1         | 1                              | -         | -                              | -         | -                                                                                | 1         | -                              | -         | -                                           | -         | -                              | 1         | -                              | -         | -                                                                    | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 13         |
| <b>Footnotes:</b><br><sup>(21)</sup> Increased installation funding in FY 19 to account for increases in installation costs due to new contract firm fixed price cost structure.<br><sup>(22)</sup> PAAA Backfit Kits are partial systems. The last option year under the current CEC Production contract is FY 2016. |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                             |           |                                |           |                                |           |                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                                  |  | <b>Date:</b> February 2018 |  |                                                                                                           |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |  |                            |  | <b>Modification Number / Title:</b><br>3 / UC009 - SIGNAL DATA<br>PROCESSOR (SDP) BACKFITS (AN/<br>USG-2) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 24.183      | 3.839   | 3.285   | 8.081        | 0.000       | 8.081           | 2.666   | 2.317   | 1.533   | 0.000   | 0.000       | 45.904 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 24.183      | 3.839   | 3.285   | 8.081        | 0.000       | 8.081           | 2.666   | 2.317   | 1.533   | 0.000   | 0.000       | 45.904 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 24.183      | 3.839   | 3.285   | 8.081        | 0.000       | 8.081           | 2.666   | 2.317   | 1.533   | 0.000   | 0.000       | 45.904 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Strike Group Anti-Air Warfare (AAW) Improvement. Funds are for the procurement of Signal Data Processors (SDP) backfits in alignment with Fleet Modernization Procurement and Installation Plan for CEC Backfit to CG, DDG, CVN, and LHD ship classes

[SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2)] Prior Year and FY12 includes funding to procure AN/USG-2B hardware conversion kits. A new cost code (UC013) was created and the funding for the hardware conversion kits has been realigned to this cost code for FY13-18.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                | <b>Date:</b> February 2018                                                                         |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7           |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                                |                                |                                |                                                  |                                | <b>Modification Number / Title:</b><br>3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                   |                                |                                |                                |                                                                                  |                                |                                |                                | <b>MDAP/MAIS Code:</b>                           |                                |                                                                                                    |                                |                                |  |
| <b>Models of Systems Affected:</b> UC009 SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2) |                                |                                |                                | <b>Modification Type:</b> SGAAW                                                  |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0603755N, 0603658N |                                |                                                                                                    |                                |                                |  |
| <b>Financial Plan</b>                                                                     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                                   | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                     | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                        |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                |                                                                                                    |                                |                                |  |
| <b>Modification Item 1 of 1:</b> UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)  |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                |                                                                                                    |                                |                                |  |
| B Kits                                                                                    |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                |                                                                                                    |                                |                                |  |
| Recurring                                                                                 |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                |                                                                                                    |                                |                                |  |
| 1.1.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2) - NonOrganic <sup>(23)</sup>      | 29 / 12.266                    | 1 / 0.227                      | 3 / 0.695                      | 9 / 2.127                                                                        | - / -                          | 9 / 2.127                      | 3 / 0.723                      | - / -                                            | - / -                          | - / -                                                                                              | - / -                          | 45 / 16.038                    |  |
| <b>Subtotal: Recurring</b>                                                                | - / 12.266                     | - / 0.227                      | - / 0.695                      | - / 2.127                                                                        | - / -                          | - / 2.127                      | - / 0.723                      | - / -                                            | - / -                          | - / -                                                                                              | - / 0.000                      | - / 16.038                     |  |
| <b>Subtotal: UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)</b>                  | 29 / 12.266                    | 1 / 0.227                      | 3 / 0.695                      | 9 / 2.127                                                                        | - / -                          | 9 / 2.127                      | 3 / 0.723                      | - / -                                            | - / -                          | - / -                                                                                              | - / -                          | 45 / 16.038                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                      | - / 12.266                     | - / 0.227                      | - / 0.695                      | - / 2.127                                                                        | - / -                          | - / 2.127                      | - / 0.723                      | - / -                                            | - / -                          | - / -                                                                                              | - / 0.000                      | - / 16.038                     |  |
| <b>Installation</b>                                                                       |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                |                                                                                                    |                                |                                |  |
| <b>Modification Item 1 of 1:</b> UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)  | - / 11.917                     | - / 3.612                      | - / 2.590                      | - / 5.954                                                                        | - / 0.000                      | - / 5.954                      | - / 1.943                      | - / 2.317                                        | - / 1.533                      | - / 0.000                                                                                          | - / 0.000                      | - / 29.866                     |  |
| <b>Subtotal: Installation</b>                                                             | - / 11.917                     | - / 3.612                      | - / 2.590                      | - / 5.954                                                                        | - / -                          | - / 5.954                      | - / 1.943                      | - / 2.317                                        | - / 1.533                      | - / -                                                                                              | - / 0.000                      | - / 29.866                     |  |
| <b>Total</b>                                                                              |                                |                                |                                |                                                                                  |                                |                                |                                |                                                  |                                |                                                                                                    |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                  | 24.183                         | 3.839                          | 3.285                          | 8.081                                                                            | 0.000                          | 8.081                          | 2.666                          | 2.317                                            | 1.533                          | 0.000                                                                                              | 0.000                          | 45.904                         |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                            |                                       |                                       |                                       |                                                                                  |                                       |                                       | <b>Date:</b> February 2018                  |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                                       |                                       |                                             | <b>Modification Number / Title:</b><br>3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) |                                       |                                       |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                               |                                       |                                       |                                       |                                                                                  |                                       |                                       | <b>MDAP/MAIS Code:</b>                      |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Modification Item 1 of 1:</b> UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)                                              |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Manufacturer Information</b>                                                                                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| Manufacturer Name: Sechan Electronics, Inc. <sup>(24)</sup>                                                                           |                                       |                                       |                                       |                                                                                  |                                       |                                       | Manufacturer Location: Lititz, PA           |                                                                                                    |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                        |                                       |                                       |                                       |                                                                                  |                                       |                                       | Production Leadtime <i>(in Months)</i> : 18 |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                                                          | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                              |                                                                                                    |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                                                        |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                                                        |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| Manufacturer Name: TBD <sup>(25)</sup>                                                                                                |                                       |                                       |                                       |                                                                                  |                                       |                                       | Manufacturer Location: TBD                  |                                                                                                    |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                        |                                       |                                       |                                       |                                                                                  |                                       |                                       | Production Leadtime <i>(in Months)</i> : 18 |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                                                          | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                              |                                                                                                    |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                                                        | May 2017                              | May 2018                              | May 2019                              | May 2020                                                                         |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                                                        | Nov 2018                              | Nov 2019                              | Nov 2020                              | Nov 2021                                                                         |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Installation Information</b>                                                                                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Method of Implementation:</b> ALTERATION INSTALLATION TEAM (AIT):: Installation Name: SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/US |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                             |                                                                                                    |                                       |                                       |                                       |                                       |
| <b>Installation Cost</b>                                                                                                              | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                              | <b>FY 2021</b>                                                                                     | <b>FY 2022</b>                        | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                                                                       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>       | <i>Qty (Each) / Total Cost (\$ M)</i>                                                              | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| Prior Years                                                                                                                           | 16 / 11.917                           | 6 / 3.612                             | 4 / 2.590                             | 3 / 1.533                                                                        | 0 / 0.000                             | 3 / 1.533                             | - / -                                       | - / -                                                                                              | - / -                                 | - / -                                 | 0 / 0.000                             | 29 / 19.652                           |
| FY 2017                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | 1 / 0.511                                                                        | 0 / 0.000                             | 1 / 0.511                             | - / -                                       | - / -                                                                                              | - / -                                 | - / -                                 | 0 / 0.000                             | 1 / 0.511                             |
| FY 2018                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | 0 / 0.410                                                                        | 0 / 0.000                             | 0 / 0.410                             | 3 / 1.533                                   | - / -                                                                                              | - / -                                 | - / -                                 | 0 / 0.000                             | 3 / 1.943                             |
| FY 2019                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | 5 / 3.500                                                                        | 0 / 0.000                             | 5 / 3.500                             | 0 / 0.410                                   | 4 / 2.044                                                                                          | - / -                                 | - / -                                 | 0 / 0.000                             | 9 / 5.954                             |
| FY 2020                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                       | 0 / 0.273                                                                                          | 3 / 1.533                             | - / -                                 | 0 / 0.000                             | 3 / 1.806                             |
| FY 2021                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| FY 2022                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| FY 2023                                                                                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| To Complete                                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                              | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| <b>Total</b>                                                                                                                          | 16 / 11.917                           | 6 / 3.612                             | 4 / 2.590                             | 9 / 5.954                                                                        | 0 / 0.000                             | 9 / 5.954                             | 3 / 1.943                                   | 4 / 2.317                                                                                          | 3 / 1.533                             | - / -                                 | 0 / 0.000                             | 45 / 29.866                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                                  | <b>Date:</b> February 2018                                                                         |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability | <b>Modification Number / Title:</b><br>3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) |

|                                                         |                        |
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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
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| <b>Modification Item 1 of 1:</b> UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) |
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|---------------------------------|
| <b>Installation Information</b> |
|---------------------------------|

|                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Method of Implementation:</b> ALTERATION INSTALLATION TEAM (AIT):: Installation Name: SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/US |
|---------------------------------------------------------------------------------------------------------------------------------------|

|                              |
|------------------------------|
| <b>Installation Schedule</b> |
|------------------------------|

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 16  | 3       | 1  | 2  | -  | -       | 4  | -  | -  | 2       | -  | 1  | 6  | -       | 1  | 1  | 1  | 1       | -  | 2  | 1  | -       | 1  | 1  | 1  | -       | -  | -  | -  | -  | 45  |
| Out | 16  | 3       | 1  | 2  | -  | -       | 4  | -  | -  | 2       | -  | 1  | 6  | -       | 1  | 1  | 1  | 1       | -  | 2  | 1  | -       | 1  | 1  | 1  | -       | -  | -  | -  | -  | 45  |

**Footnotes:**

<sup>(23)</sup> A new cost code (UC013) was created and the funding for the hardware conversion kits has been realigned to this cost code for FY13-18. Funds are for the procurement of Signal Data Processors (SDP) backfits in alignment with Fleet Modernization Procurement and Installation Plan for CEC Backfit to CG, DDG, CVN, and LHD ship classes. FY 19 - Added procurement and installation quantity of 5 units for Mode 5 IFF Acceleration. Increased installation costs in FY 19 as a result of higher shipyard costs due to Firm Fixed Priced Contract cost structure.

<sup>(24)</sup> The last option year under the current SDP-S Production contract is FY16. Planning to award a competitive follow-on contract in FY17.

<sup>(25)</sup> A competitive follow-on contract action is in process with an expected award date of 3Q FY2017.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                                  |  | <b>Date:</b> February 2018 |  |                                                                                                      |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |  |                            |  | <b>Modification Number / Title:</b><br>4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 13.500      | 1.217   | 0.392   | 0.421        | 0.000       | 0.421           | 0.804   | 0.384   | 0.000   | 0.000   | 0.000       | 16.718 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 13.500      | 1.217   | 0.392   | 0.421        | 0.000       | 0.421           | 0.804   | 0.384   | 0.000   | 0.000   | 0.000       | 16.718 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 13.500      | 1.217   | 0.392   | 0.421        | 0.000       | 0.421           | 0.804   | 0.384   | 0.000   | 0.000   | 0.000       | 16.718 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Strike Group Anti-Air Warfare (AAW) Improvement. Funds are for the procurement of Signal Data Processors (SDP) backfits for AN/USG-2A equipment in alignment with Fleet Modernization Procurement and Installation Plan for CEC Backfit to CG, DDG, CVN, and LHD ship classes

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                        |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       | <b>Date:</b> February 2018                                                                           |                                       |                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                   |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) |                                       |                                       |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                           |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                                                                               |                                       |                                       |                                       |                                       |  |
| <b>Models of Systems Affected:</b> UC010 SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)        |                                       |                                       |                                       | <b>Modification Type:</b> SGAAW                                                  |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0603755N, 0603658N                                                     |                                       |                                       |                                       |                                       |  |
| <b>Financial Plan</b>                                                                             | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                                       | <b>FY 2022</b>                        | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |
| <i><b>Modification Item 1 of 1:</b></i> UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |
| B Kits                                                                                            |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |
| Recurring                                                                                         |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |
| 1.1.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) - NonOrganic <sup>(26)</sup>             | 21 / 7.496                            | 1 / 0.227                             | 1 / 0.232                             | 1 / 0.236                                                                        | - / -                                 | 1 / 0.236                             | 2 / 0.482                             | - / -                                                                                                | - / -                                 | - / -                                 | - / -                                 | 26 / 8.673                            |  |
| <i>Subtotal: Recurring</i>                                                                        | - / 7.496                             | - / 0.227                             | - / 0.232                             | - / 0.236                                                                        | - / -                                 | - / 0.236                             | - / 0.482                             | - / -                                                                                                | - / -                                 | - / -                                 | - / 0.000                             | - / 8.673                             |  |
| <i>Subtotal: UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)</i>                        | 21 / 7.496                            | 1 / 0.227                             | 1 / 0.232                             | 1 / 0.236                                                                        | - / -                                 | 1 / 0.236                             | 2 / 0.482                             | - / -                                                                                                | - / -                                 | - / -                                 | - / -                                 | 26 / 8.673                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                              | - / 7.496                             | - / 0.227                             | - / 0.232                             | - / 0.236                                                                        | - / -                                 | - / 0.236                             | - / 0.482                             | - / -                                                                                                | - / -                                 | - / -                                 | - / 0.000                             | - / 8.673                             |  |
| <b>Installation</b>                                                                               |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |
| <i><b>Modification Item 1 of 1:</b></i> UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) | - / 6.004                             | - / 0.990                             | - / 0.160                             | - / 0.185                                                                        | - / 0.000                             | - / 0.185                             | - / 0.322                             | - / 0.384                                                                                            | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 8.045                             |  |
| <i>Subtotal: Installation</i>                                                                     | - / 6.004                             | - / 0.990                             | - / 0.160                             | - / 0.185                                                                        | - / -                                 | - / 0.185                             | - / 0.322                             | - / 0.384                                                                                            | - / -                                 | - / -                                 | - / 0.000                             | - / 8.045                             |  |
| <b>Total</b>                                                                                      |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                          | <b>13.500</b>                         | <b>1.217</b>                          | <b>0.392</b>                          | <b>0.421</b>                                                                     | <b>0.000</b>                          | <b>0.421</b>                          | <b>0.804</b>                          | <b>0.384</b>                                                                                         | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>16.718</b>                         |  |
|                                                                                                   |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                                                                                      |                                       |                                       |                                       |                                       |  |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                            |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018          |                                                                                                      |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                       |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                                |                                |                                     | <b>Modification Number / Title:</b><br>4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                               |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>              |                                                                                                      |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)                                            |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                                                       |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| Manufacturer Name: Sechan Electronics, Inc. <sup>(27)</sup>                                                                           |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Lititz, PA   |                                                                                                      |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                                                |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 18 |                                                                                                      |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                          | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                      |                                                                                                      |                                |                                |                                |                                |
| Contract Dates                                                                                                                        |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| Delivery Dates                                                                                                                        |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| Manufacturer Name: TBD <sup>(28)</sup>                                                                                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: TBD          |                                                                                                      |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                                                |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 18 |                                                                                                      |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                          | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                      |                                                                                                      |                                |                                |                                |                                |
| Contract Dates                                                                                                                        | May 2017                       | May 2018                       | May 2019                       | May 2020                                                                         |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| Delivery Dates                                                                                                                        | Nov 2018                       | Nov 2019                       | Nov 2020                       | Nov 2021                                                                         |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                                                       |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| <b>Method of Implementation:</b> ALTERATION INSTALLATION TEAM (AIT):: Installation Name: SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/US |                                |                                |                                |                                                                                  |                                |                                |                                     |                                                                                                      |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                                              | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                      | <b>FY 2021</b>                                                                                       | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)      | Qty (Each) / Total Cost (\$ M)                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                                           | 16 / 6.004                     | 5 / 0.805                      | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                                                                | - / -                          | - / -                          | 0 / 0.000                      | 21 / 6.809                     |
| FY 2017                                                                                                                               | - / -                          | 0 / 0.185                      | 0 / 0.160                      | 1 / 0.000                                                                        | 0 / 0.000                      | 1 / 0.000                      | - / -                               | - / -                                                                                                | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.345                      |
| FY 2018                                                                                                                               | - / -                          | - / -                          | - / -                          | 1 / 0.161                                                                        | 0 / 0.000                      | 1 / 0.161                      | - / -                               | - / -                                                                                                | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.161                      |
| FY 2019                                                                                                                               | - / -                          | - / -                          | - / -                          | 0 / 0.024                                                                        | 0 / 0.000                      | 0 / 0.024                      | 1 / 0.161                           | - / -                                                                                                | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.185                      |
| FY 2020                                                                                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 0 / 0.161                           | 2 / 0.384                                                                                            | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.545                      |
| FY 2021                                                                                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022                                                                                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023                                                                                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                                                                           | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                               | - / -                                                                                                | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                                                                 | 16 / 6.004                     | 5 / 0.990                      | 0 / 0.160                      | 2 / 0.185                                                                        | 0 / 0.000                      | 2 / 0.185                      | 1 / 0.322                           | 2 / 0.384                                                                                            | - / -                          | - / -                          | 0 / 0.000                      | 26 / 8.045                     |

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|--------------------------------------------------------------------------------------------------------------------------------|-----|---------|----|----|----|---------|----|----|----|---------|---------------------------------------------------------------------------|----|----|---------|----|-----------------|----|---------|----|----|----|---------|-----------------------------------------------------------------------------------------------|----|----|---------|----|----|----|----|-----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                            |     |         |    |    |    |         |    |    |    |         |                                                                           |    |    |         |    |                 |    |         |    |    |    |         | Date: February 2018                                                                           |    |    |         |    |    |    |    |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                       |     |         |    |    |    |         |    |    |    |         | P-1 Line Item Number / Title:<br>2606 / Cooperative Engagement Capability |    |    |         |    |                 |    |         |    |    |    |         | Modification Number / Title:<br>4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) |    |    |         |    |    |    |    |     |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                               |     |         |    |    |    |         |    |    |    |         |                                                                           |    |    |         |    | MDAP/MAIS Code: |    |         |    |    |    |         |                                                                                               |    |    |         |    |    |    |    |     |
| Modification Item 1 of 1: UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)                                            |     |         |    |    |    |         |    |    |    |         |                                                                           |    |    |         |    |                 |    |         |    |    |    |         |                                                                                               |    |    |         |    |    |    |    |     |
| Installation Information                                                                                                       |     |         |    |    |    |         |    |    |    |         |                                                                           |    |    |         |    |                 |    |         |    |    |    |         |                                                                                               |    |    |         |    |    |    |    |     |
| Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/US |     |         |    |    |    |         |    |    |    |         |                                                                           |    |    |         |    |                 |    |         |    |    |    |         |                                                                                               |    |    |         |    |    |    |    |     |
| Installation Schedule                                                                                                          |     |         |    |    |    |         |    |    |    |         |                                                                           |    |    |         |    |                 |    |         |    |    |    |         |                                                                                               |    |    |         |    |    |    |    |     |
|                                                                                                                                | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |                                                                           |    |    | FY 2020 |    |                 |    | FY 2021 |    |    |    | FY 2022 |                                                                                               |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                                                |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2                                                                        | Q3 | Q4 | Q1      | Q2 | Q3              | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2                                                                                            | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                                             | 16  | 1       | 2  | -  | 2  | -       | -  | -  | -  | 1       | -                                                                         | -  | 1  | -       | -  | -               | 1  | -       | -  | -  | 2  | -       | -                                                                                             | -  | -  | -       | -  | -  | -  | 26 |     |
| Out                                                                                                                            | 16  | 1       | 2  | -  | 2  | -       | -  | -  | -  | 1       | -                                                                         | -  | 1  | -       | -  | -               | 1  | -       | -  | -  | 2  | -       | -                                                                                             | -  | -  | -       | -  | -  | -  | 26 |     |

## Footnotes:

<sup>(26)</sup> Funds are for the procurement of Signal Data Processors (SDP) backfits for AN/USG-2A equipment in alignment with Fleet Modernization Procurement and Installation Plan for CEC Backfit to CG, DDG, CVN, and LHD ship classes. First Delivery from Competitively awarded May 2017 contract in will be November 2018.

<sup>(27)</sup> The last option year under the current SDP-S Production contract is FY16. Planning to award a competitive follow-on contract in FY17.

<sup>(28)</sup> A competitive follow-on contract action is in process with an expected award date of 3Q FY2017.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-------------------------------------------------------------------------------------------------|--------------------|----------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                |                    |                |                |                                                                                  |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                      |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                           |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                   |                    |                |                |                                                                                  |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                 |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                   | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                  | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                               | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                        | 3.400              | 1.822          | 0.000          | 9.352                                                                            | 0.000              | 9.352                | 13.226                 | 18.120         | 21.656         | 21.739                                                                                          | 58.359             | 147.674        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                               | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                           | 3.400              | 1.822          | 0.000          | 9.352                                                                            | 0.000              | 9.352                | 13.226                 | 18.120         | 21.656         | 21.739                                                                                          | 58.359             | 147.674        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                               | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                               | <b>3.400</b>       | <b>1.822</b>   | <b>0.000</b>   | <b>9.352</b>                                                                     | <b>0.000</b>       | <b>9.352</b>         | <b>13.226</b>          | <b>18.120</b>  | <b>21.656</b>  | <b>21.739</b>                                                                                   | <b>58.359</b>      | <b>147.674</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                             |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                                                 |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                               | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                               | -                  | -              |
| <b>Description:</b><br>Strike Group Anti-Air Warfare (AAW) Improvement. Funds are for the procurement of Common Array Block (CAB) antennas for shipboard AN/USG-2B systems in alignment with Fleet Modernization Procurement and Installation Plan for CEC Backfit to CG, DDG, CVN, and LHD ship classes, |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                                                 |                    |                |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|----------------------------------------------------------------------------------|----------------------------|---------------------------------------|-----------|---------------------------------------------|------------------------|---------------------------------------|-----------|---------------------------------------|-----------|-------------------------------------------------------------------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                              |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  | <b>Date:</b> February 2018 |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                         |            |                                       |           |                                       |           |                                       |           |                                       |           | <b>P-1 Line Item Number / Title:</b><br>2606 / Cooperative Engagement Capability |                            |                                       |           |                                             |                        |                                       |           |                                       |           | <b>Modification Number / Title:</b><br>5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                 |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             | <b>MDAP/MAIS Code:</b> |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD                                                                                                                                                                                                                                                                                                                   |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                         |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| Manufacturer Name: RAYTHEON                                                                                                                                                                                                                                                                                                                                                                             |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           | Manufacturer Location: ST. PETERSBURG, FL   |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 18                                                                                                                                                                                                                                                                                                                                                         |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           | Production Leadtime <i>(in Months)</i> : 18 |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>FY 2017</b>                        |           |                                       |           | <b>FY 2018</b>                        |           |                                       |           | <b>FY 2019</b>                                                                   |                            |                                       |           | <b>FY 2020</b>                              |                        |                                       |           | <b>FY 2021</b>                        |           |                                                                                                 |           | <b>FY 2022</b>                        |           |                                       |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                          |            |                                       |           |                                       |           |                                       |           |                                       |           | Dec 2018                                                                         |                            |                                       |           | Dec 2019                                    |                        |                                       |           | Dec 2020                              |           |                                                                                                 |           | Dec 2021                              |           |                                       |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                          |            |                                       |           |                                       |           |                                       |           |                                       |           | Jun 2020                                                                         |                            |                                       |           | Jun 2021                                    |                        |                                       |           | Jun 2022                              |           |                                                                                                 |           | Jun 2023                              |           |                                       |           | Jun 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                         |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> ALTERATION INSTALLATION TEAM (AIT):: Installation Name: COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD                                                                                                                                                                                                                                                                   |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                |            | <b>Prior Years</b>                    |           | <b>FY 2017</b>                        |           | <b>FY 2018</b>                        |           | <b>FY 2019 Base</b>                   |           | <b>FY 2019 OCO</b>                                                               |                            | <b>FY 2019 Total</b>                  |           | <b>FY 2020</b>                              |                        | <b>FY 2021</b>                        |           | <b>FY 2022</b>                        |           | <b>FY 2023</b>                                                                                  |           | <b>To Complete</b>                    |           | <b>Total</b>                          |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                         |            | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i>                                            |                            | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i>       |                        | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i>                                                           |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                                 |           | 2 / 1.822                             |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | - / -                                 |           | - / -                                                                                           |           | 0 / 0.000                             |           | 2 / 1.822                             |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | - / -                                 |           | - / -                                                                                           |           | - / -                                 |           | - / -                                 |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | - / -                                 |           | - / -                                                                                           |           | - / -                                 |           | - / -                                 |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | 0 / 1.186                                   |                        | 4 / 3.644                             |           | - / -                                 |           | - / -                                                                                           |           | 0 / 0.000                             |           | 4 / 4.830                             |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | 0 / 2.076                             |           | 5 / 4.555                             |           | - / -                                                                                           |           | 0 / 0.000                             |           | 5 / 6.631                             |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | 0 / 1.780                             |           | 5 / 4.555                                                                                       |           | 0 / 0.000                             |           | 5 / 6.335                             |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | - / -                                 |           | 0 / 1.780                                                                                       |           | 6 / 5.630                             |           | 6 / 7.410                             |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | - / -                                 |           | - / -                                                                                           |           | 6 / 6.335                             |           | 6 / 6.335                             |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | - / -                                       |                        | - / -                                 |           | - / -                                 |           | - / -                                                                                           |           | 14 / 18.608                           |           | 14 / 18.608                           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                   |            | - / -                                 |           | 2 / 1.822                             |           | - / -                                 |           | - / -                                 |           | - / -                                                                            |                            | - / -                                 |           | 0 / 1.186                                   |                        | 4 / 5.720                             |           | 5 / 6.335                             |           | 5 / 6.335                                                                                       |           | 26 / 30.573                           |           | 42 / 51.971                           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                            |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                        |           |                                       |           | <b>FY 2018</b>                        |           |                                       |           | <b>FY 2019</b>                                                                   |                            |                                       |           | <b>FY 2020</b>                              |                        |                                       |           | <b>FY 2021</b>                        |           |                                                                                                 |           | <b>FY 2022</b>                        |           |                                       |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                                                                        | <b>Q2</b>                  | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                                   | <b>Q2</b>              | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                                                                                       | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                      | -          | 1                                     | -         | 1                                     | -         | -                                     | -         | -                                     | -         | -                                                                                | -                          | -                                     | -         | -                                           | -                      | -                                     | -         | -                                     | 2         | 2                                                                                               | -         | 2                                     | 2         | 1                                     | -         | 2              | 2         | 1         | -         | 26        | 42         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                     | -          | 1                                     | -         | 1                                     | -         | -                                     | -         | -                                     | -         | -                                                                                | -                          | -                                     | -         | -                                           | -                      | -                                     | -         | -                                     | 2         | 2                                                                                               | -         | 2                                     | 2         | 1                                     | -         | 2              | 2         | 1         | -         | 26        | 42         |
| <b>Footnotes:</b><br><sup>(29)</sup> The unit price of the CAB increased by approximately \$400K from the PB-16 budget starting in FY17. This increase is driven by the requirement to procure 1 new Environmental Control System Controller (ECSC) for each CAB that is procured. Removed Procurements in FY 17 and Installation costs for FY 18 and FY 19 due to congressional mark in FY 17 (4.069M) |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                                  |                            |                                       |           |                                             |                        |                                       |           |                                       |           |                                                                                                 |           |                                       |           |                                       |           |                |           |           |           |           |            |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|-------------------------------------------------------------------------|---------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         |                                        |              |             |                                                                         |         | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |         |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         | Program Elements for Code B Items: N/A |              |             |                                                                         |         | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                        |              |             |                                                                         |         |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                           | FY 2020 | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -                                      | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 620.586     | 12.336  | 10.741                                 | 10.991       | 0.000       | 10.991                                                                  | 14.571  | 14.779                              | 16.317  | 17.896  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 620.586     | 12.336  | 10.741                                 | 10.991       | 0.000       | 10.991                                                                  | 14.571  | 14.779                              | 16.317  | 17.896  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 620.586     | 12.336  | 10.741                                 | 10.991       | 0.000       | 10.991                                                                  | 14.571  | 14.779                              | 16.317  | 17.896  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |                                                                         |         |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -           | 0.122   | 0.204                                  | 0.128        | -           | 0.128                                                                   | 0.373   | 0.304                               | 0.230   | 0.233   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -                                      | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -           | -       | -                                      | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |                                        |              |             |                                                                         |         |                                     |         |         |             |            |
| <p>The Naval Tactical Command Support System (NTCSS) is a multi-function program designed to provide standard tactical support information systems to various afloat and associated shore-based fleet activities. The mission is to provide the full range of responsive tactical support Automated Data Processing (ADP) hardware and software in support of the management of information, personnel, material and funds required to maintain and operate ships, submarines, and aircraft. NTCSS is to provide an efficient management of afloat tactical support data, through the use of standardized hardware and software, to meet the mission support information management requirements for force sustainment.</p> <p>NTCSS incorporates the functionality of the Shipboard Non-Tactical ADP Program (SNAP) systems, the Naval Aviation Logistics Command Management Information System (NALCOMIS), and the Maintenance Resource Management System (MRMS).</p> <p>SNAP is an automated information system that supports organizational level maintenance, supply, financial and administrative functions on afloat units, at Marine Aviation Logistics Squadrons (MALs) and at associated shore activities. SNAP improves equipment supportability and maintainability and thus readiness through: improvement in the accuracy of maintenance, supply, financial and related support data maintained and reported by the ship; and acceleration of management report preparation and data transmission. The scope of SNAP includes approximately 300 sites.</p> <p>NALCOMIS is an automated, real time, interactive, management information system that provides a modern management tool for day-to-day management of aircraft maintenance at the organizational and intermediate levels. NALCOMIS automates management of the aviation repairables inventory, providing nose-to-tail tracking through the repair and operations cycles. The scope of NALCOMIS includes 66 aviation intermediate maintenance activities located afloat (CVN/LHA/LHD/MALS), at Naval Air Stations (NAS), and approximately 326 Navy and Marine Squadrons.</p> <p>MRMS is an automated information system that supports ship intermediate maintenance management of the Atlantic and Pacific Fleets. MRMS supports Type Commands, Group Commanders, Area Coordinators, Readiness Support Groups, Submarine Squadrons, Ship Repair Facilities, and various Intermediate Maintenance Activities, both afloat and ashore, for budgeting, planning, production and analysis of ship maintenance. MRMS improves ship readiness through improved maintenance and ship repair management, information resource management, and maintenance data processing. The scope of MRMS includes approximately 16 shipboard and 65 shore based intermediate and maintenance and planning activities.</p> <p>DY005, Ship Set Equipment Upgrades procures afloat ruggedized, commercial-off-the-shelf (COTS) computing equipment, which includes servers to support the NTCSS application and database, personal computers (PCs) that will interface with the servers for maintenance and supply transactions, and printers to display output. COTS software, which includes the operating system, comes loaded on the servers and PCs.</p> |             |         |                                        |              |             |                                                                         |         |                                     |         |         |             |            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                  |                                               | <b>Date:</b> February 2018                                                     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                            |                                               | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                           | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                     |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                               |                                               |                                                                                |
| <p>DY006, MALS/Shore Equipment Upgrades procures ashore ruggedized, COTS computing equipment, which includes servers to support the NTCSS application and database, PCs that will interface with the servers for maintenance and supply transactions, and printers to display output. COTS software, which includes the operating system, comes loaded on the servers and PCs.</p> |                                               |                                                                                |



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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------|-----------------------|----------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                            |                    |                                               |                       |                                              |                                                                                |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                            |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                            |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                                     |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                            |                    |                                               |                       |                                              |                                                                                |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                            |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                 | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Title*</b>                                                                              | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                   | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 / Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)              | P-5a               |                                               |                       | - / 306.019                                  | - / 2.197                                                                      | - / 3.359                                    | - / 4.593                                    | - / 0.000                                    | - / 4.593                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1 / 2611 Naval Tactical Command Support System MALS/Shore Equipment Upgrades (DY006) (TBD) |                    |                                               |                       | - / 314.567                                  | - / 10.139                                                                     | - / 7.382                                    | - / 6.398                                    | - / 0.000                                    | - / 6.398                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Total Gross/Weapon System Cost</b>                                                      |                    |                                               |                       | <b>- / 620.586</b>                           | <b>- / 12.336</b>                                                              | <b>- / 10.741</b>                            | <b>- / 10.991</b>                            | <b>- / 0.000</b>                             | <b>- / 10.991</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                            |                    |                                               |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                                 | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Title*</b>                                                                              | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                   | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 / Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)              | P-5a               |                                               |                       | - / -                                        | - / -                                                                          | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1 / 2611 Naval Tactical Command Support System MALS/Shore Equipment Upgrades (DY006) (TBD) |                    |                                               |                       | - / 10.837                                   | - / 12.537                                                                     | - / 14.476                                   | - / 16.442                                   | Continuing                                   | Continuing                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Total Gross/Weapon System Cost</b>                                                      |                    |                                               |                       | <b>- / 14.571</b>                            | <b>- / 14.779</b>                                                              | <b>- / 16.317</b>                            | <b>- / 17.896</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                            |                    |                                               |                       |                                              |                                                                                |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                            |                    |                                               |                       |                                              |                                                                                |                                              |                                              |                                              |                                              |
| <b>Justification:</b><br>Funding for FY19 procures: 1) NTCSS system upgrades for ships; 2) NTCSS system upgrades for Naval Air Stations (NAS), Squadrons, Shore Support Facilities, Fleet Training Centers, Marine Aviation Logistics Squadrons (MALs), Navy Expeditionary Combat Command sites, Special Warfare units, and Commander Naval Surface Forces; and 3) necessary production engineering and installation support.<br><br>NTCSS-Optimized software will continue to be fielded at program-of-record (POR) afloat and ashore sites. Ship set and MALS/Shore equipment upgrades continue; hardware and software upgrades required for obsolescence avoidance. |                                                                                            |                    |                                               |                       |                                              |                                                                                |                                              |                                              |                                              |                                              |

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|----------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|-------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------------|---------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     | Date: February 2018 |                                                                                                                     |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |                     |               |                      |                     |                     | Item Number / Title [DODIC]:<br>1 / Naval Tactical Command Support<br>System Ship Set Equipment Upgrades<br>(DY005) |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                                                                         |                     |               |                      | MDAP/MAIS Code:     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017                                                                 |                     | FY 2018       |                      | FY 2019 Base        |                     | FY 2019 OCO                                                                                                         |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |                     | -                                                                                                                   |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 306.019             |               | 2.197                                                                   |                     | 3.359         |                      | 4.593               |                     | 0.000                                                                                                               |                     | 4.593         |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |                     | -                                                                                                                   |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 306.019             |               | 2.197                                                                   |                     | 3.359         |                      | 4.593               |                     | 0.000                                                                                                               |                     | 4.593         |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |                     | -                                                                                                                   |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 306.019             |               | 2.197                                                                   |                     | 3.359         |                      | 4.593               |                     | 0.000                                                                                                               |                     | 4.593         |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |                     | -                                                                                                                   |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |                     | -                                                                                                                   |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                                                                         | FY 2018             |               |                      | FY 2019 Base        |                     |                                                                                                                     | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                    | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)       | Total Cost<br>(\$ M)                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Flyaway - Ship Set Equipment Upgrades (DY005) Cost                                                                                     |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| 1.1.1) Equipment <sup>(†) (1)</sup>                                                                                                    | 223.572             | 697           | 155.830              | 48.609              | 23            | 1.118                                                                   | 37.008              | 50            | 1.850                | 35.301              | 70                  | 2.471                                                                                                               | -                   | -             | 0.000                | 35.301              | 70            | 2.471                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 155.830              | -                   | -             | 1.118                                                                   | -                   | -             | 1.850                | -                   | -                   | 2.471                                                                                                               | -                   | -             | 0.000                | -                   | -             | 2.471                |
| Subtotal: Flyaway - Ship Set Equipment Upgrades (DY005) Cost                                                                           | -                   | -             | 155.830              | -                   | -             | 1.118                                                                   | -                   | -             | 1.850                | -                   | -                   | 2.471                                                                                                               | -                   | -             | 0.000                | -                   | -             | 2.471                |
| Flyaway - Afloat Installations FMP (DY777) Cost                                                                                        |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| 2.1.1) Afloat Installation                                                                                                             | -                   | -             | 131.101              | -                   | -             | 0.947                                                                   | -                   | -             | 1.270                | -                   | -                   | 1.800                                                                                                               | -                   | -             | 0.000                | -                   | -             | 1.800                |
| 2.1.2) DSA                                                                                                                             | -                   | -             | 5.334                | -                   | -             | 0.065                                                                   | -                   | -             | 0.128                | -                   | -                   | 0.175                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.175                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 136.435              | -                   | -             | 1.012                                                                   | -                   | -             | 1.398                | -                   | -                   | 1.975                                                                                                               | -                   | -             | 0.000                | -                   | -             | 1.975                |
| Subtotal: Flyaway - Afloat Installations FMP (DY777) Cost                                                                              | -                   | -             | 136.435              | -                   | -             | 1.012                                                                   | -                   | -             | 1.398                | -                   | -                   | 1.975                                                                                                               | -                   | -             | 0.000                | -                   | -             | 1.975                |
| Flyaway - Support Cost (DY555) Cost                                                                                                    |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |                     |                                                                                                                     |                     |               |                      |                     |               |                      |
| 3.1.1) Production Support                                                                                                              | -                   | -             | 13.754               | -                   | -             | 0.067                                                                   | -                   | -             | 0.111                | -                   | -                   | 0.147                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.147                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 13.754               | -                   | -             | 0.067                                                                   | -                   | -             | 0.111                | -                   | -                   | 0.147                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.147                |

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| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                 |                                                                                | <b>Date:</b> February 2018                                                                                           |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) | <b>Item Number / Title [DODIC]:</b><br>1 / Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005) |

|                                                         |                        |
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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

| Cost Elements                                        | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018             |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
|                                                      | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| <i>Subtotal: Flyaway - Support Cost (DY555) Cost</i> | -                   | -             | 13.754               | -                   | -             | 0.067                | -                   | -             | 0.111                | -                   | -             | 0.147                | -                   | -             | 0.000                | -                   | -             | 0.147                |
| <b>Gross/Weapon System Cost</b>                      | -                   | -             | 306.019              | -                   | -             | 2.197                | -                   | -             | 3.359                | -                   | -             | 4.593                | -                   | -             | 0.000                | -                   | -             | 4.593                |

**Remarks:**

Provides ADP system upgrades and NTCSS-Optimized software to Battle Group and unit level ships.

Application subsystems include financial/inventory management, organizational and surface maintenance management, and administrative information systems support. NTCSS procurements will also provide ship capabilities for displaying and storing Computer-aided Acquisition and Logistics Support (CALS) initiative information (digitized engineering drawings, automated technical manuals, etc.).

(†) indicates the presence of a P-5a

**Footnotes:**

(1) Quantity changes from year to year are driven by fact-of-life changes to ship maintenance availability schedules. The average unit cost fluctuation is primarily attributed to variance in system configuration requirements for each NTCSS platform type. For example, a NTCSS DDG hardware suite consists of 1 server, 16 desktop workstations and 7 printers while a NTCSS SSBN hardware suite consists of 2 servers, 12 desktop workstations, 20 laptop workstations and 10 printers. The average procurement cost (hardware, software, integration, and engineering support) for a unit level ship (DDG/CG/LSD) is approximately \$50K while the average procurement cost for a submarine (SSBN) is approximately \$70K. FY18 will procure: 5 CG, 4 CVN, 25 DDG, 1 LCC, 1 LHA, 1 LPD, 1 LSD, 4 MCM, 4 SSBN and 4 SSN hull types. FY19, by comparison, will procure: 7 CG, 5 CVN, 30 DDG, 1 LCC, 6 LHD, 3 LPD, 3 LSD, 3 MCM, 5 SSBN and 7 SSN hull types.

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |             |      |                                                    |                                                                         |                 |               |                              |                      | Date: February 2018                                                                                                 |                        |                               |                   |
|--------------------------------------------------------------------------|-------------|------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------|---------------|------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |             |      |                                                    | P-1 Line Item Number / Title:<br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |                 |               |                              |                      | Item Number / Title [DODIC]:<br>1 / Naval Tactical Command Support<br>System Ship Set Equipment Upgrades<br>(DY005) |                        |                               |                   |
| Cost Elements                                                            | O<br>C<br>O | FY   | Contractor and Location                            | Method/Type<br>or<br>Funding Vehicle                                    | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i> | Unit Cost<br><i>(\$ K)</i>                                                                                          | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1.1.1) Equipment                                                         |             | 2017 | Spawar Systems Center<br>Atlantic / Charleston, SC | WR                                                                      | Charleston, SC  | Nov 2016      | Jan 2017                     | 23                   | 48.609                                                                                                              | Y                      |                               | Oct 2016          |
| 1.1.1) Equipment                                                         |             | 2018 | Spawar Systems Center<br>Atlantic / Charleston, SC | WR                                                                      | Charleston, SC  | Nov 2017      | Jan 2018                     | 50                   | 37.008                                                                                                              | Y                      |                               | Oct 2017          |
| 1.1.1) Equipment                                                         |             | 2019 | Spawar Systems Center<br>Atlantic / Charleston, SC | WR                                                                      | Charleston, SC  | Nov 2018      | Jan 2019                     | 70                   | 35.301                                                                                                              | Y                      |                               | Oct 2018          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                                |  | <b>Date:</b> February 2018 |  |                                                                                                                             |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |  |                            |  | <b>Modification Number / Title:</b><br>1 / 2611 Naval Tactical Command Support System MALS/Shore Equipment Upgrades (DY006) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 314.567     | 10.139  | 7.382   | 6.398        | 0.000       | 6.398           | 10.837  | 12.537  | 14.476  | 16.442  | Continuing  | Continuing |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 314.567     | 10.139  | 7.382   | 6.398        | 0.000       | 6.398           | 10.837  | 12.537  | 14.476  | 16.442  | Continuing  | Continuing |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 314.567     | 10.139  | 7.382   | 6.398        | 0.000       | 6.398           | 10.837  | 12.537  | 14.476  | 16.442  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

Application subsystems include/financial/inventory management, organizational and surface maintenance management, and administrative information systems support. NTCSS procurements will also provide ship/shore capabilities for displaying and storing Computer-aided Acquisition and Logistics Support (CALS) initiative information (digitized engineering drawings, automated technical manuals, etc.).

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                         |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                                                                  |                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                    |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>1 / 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006) |                                       |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                            |                                       |                                       |                                       |                                                                                |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| <b>Models of Systems Affected:</b> Provides ADP system upgrades and NTCSS-Optimized software to Battle Group and unit level ships. |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                                  |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                                                                                                             |                                       |                                       |                                       |  |
| <b>Financial Plan</b>                                                                                                              | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                            | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                                                              | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                                                                    | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                                                       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                                                                 |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| <i><b>Modification Item 1 of 1:</b> 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)</i>           |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| B Kits                                                                                                                             |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| Recurring                                                                                                                          |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| 1.1.1) Equipment - NonOrganic <sup>(2)</sup>                                                                                       | 1,341 / 196.396                       | 55 / 5.570                            | 58 / 4.098                            | 49 / 3.717                                                                     | - / -                                 | 49 / 3.717                            | 51 / 6.453                            | 65 / 7.370                            | 94 / 8.096                                                                                                                  | 94 / 9.367                            | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                                                                         | - / 196.396                           | - / 5.570                             | - / 4.098                             | - / 3.717                                                                      | - / -                                 | - / 3.717                             | - / 6.453                             | - / 7.370                             | - / 8.096                                                                                                                   | - / 9.367                             | Continuing                            | Continuing                            |  |
| <i>Subtotal: 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)</i>                                  | 1,341 / 196.396                       | 55 / 5.570                            | 58 / 4.098                            | 49 / 3.717                                                                     | - / -                                 | 49 / 3.717                            | 51 / 6.453                            | 65 / 7.370                            | 94 / 8.096                                                                                                                  | 94 / 9.367                            | Continuing                            | Continuing                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                                               | - / 196.396                           | - / 5.570                             | - / 4.098                             | - / 3.717                                                                      | - / -                                 | - / 3.717                             | - / 6.453                             | - / 7.370                             | - / 8.096                                                                                                                   | - / 9.367                             | Continuing                            | Continuing                            |  |
| <b>Support (All Modification Items)</b>                                                                                            |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| 2.1) Production Support                                                                                                            | - / 13.398                            | - / 0.310                             | - / 0.245                             | - / 0.222                                                                      | - / 0.000                             | - / 0.222                             | - / 0.387                             | - / 0.442                             | - / 0.484                                                                                                                   | - / 0.562                             | Continuing                            | Continuing                            |  |
| 2.2) DSA                                                                                                                           | - / 2.981                             | - / 0.060                             | - / 0.053                             | - / 0.060                                                                      | - / 0.000                             | - / 0.060                             | - / 0.060                             | - / 0.105                             | - / 0.135                                                                                                                   | - / 0.135                             | Continuing                            | Continuing                            |  |
| <i>Subtotal: Support</i>                                                                                                           | - / 16.379                            | - / 0.370                             | - / 0.298                             | - / 0.282                                                                      | - / -                                 | - / 0.282                             | - / 0.447                             | - / 0.547                             | - / 0.619                                                                                                                   | - / 0.697                             | Continuing                            | Continuing                            |  |
| <b>Installation</b>                                                                                                                |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| <i><b>Modification Item 1 of 1:</b> 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)</i>           | - / 101.792                           | - / 4.199                             | - / 2.986                             | - / 2.399                                                                      | - / 0.000                             | - / 2.399                             | - / 3.937                             | - / 4.620                             | - / 5.761                                                                                                                   | - / 6.378                             | Continuing                            | Continuing                            |  |
| <i>Subtotal: Installation</i>                                                                                                      | - / 101.792                           | - / 4.199                             | - / 2.986                             | - / 2.399                                                                      | - / -                                 | - / 2.399                             | - / 3.937                             | - / 4.620                             | - / 5.761                                                                                                                   | - / 6.378                             | Continuing                            | Continuing                            |  |
| <b>Total</b>                                                                                                                       |                                       |                                       |                                       |                                                                                |                                       |                                       |                                       |                                       |                                                                                                                             |                                       |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                           | <b>314.567</b>                        | <b>10.139</b>                         | <b>7.382</b>                          | <b>6.398</b>                                                                   | <b>0.000</b>                          | <b>6.398</b>                          | <b>10.837</b>                         | <b>12.537</b>                         | <b>14.476</b>                                                                                                               | <b>16.442</b>                         | <b>Continuing</b>                     | <b>Continuing</b>                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                                | <b>Date:</b> February 2018                                                                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) | <b>Modification Number / Title:</b><br>1 / 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)

**Manufacturer Information**

|                                                   |                                       |
|---------------------------------------------------|---------------------------------------|
| Manufacturer Name: Spawar Systems Center Atlantic | Manufacturer Location: Charleston, SC |
| Administrative Leadtime (in Months): 1            | Production Leadtime (in Months): 2    |

| Dates          | FY 2017  | FY 2018  | FY 2019  | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|---------|---------|---------|---------|
| Contract Dates | Nov 2016 | Nov 2017 | Nov 2018 |         |         |         |         |
| Delivery Dates | Jan 2017 | Jan 2018 | Jan 2019 |         |         |         |         |

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: Equipment

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 1,341 / 101.792                | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1,341 / 101.792                |
| FY 2017           | - / -                          | 55 / 4.199                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 55 / 4.199                     |
| FY 2018           | - / -                          | - / -                          | 58 / 2.986                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 58 / 2.986                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | 49 / 2.399                     | 0 / 0.000                      | 49 / 2.399                     | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 49 / 2.399                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 51 / 3.937                     | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 51 / 3.937                     |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 65 / 4.620                     | - / -                          | - / -                          | 0 / 0.000                      | 65 / 4.620                     |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 94 / 5.761                     | - / -                          | 0 / 0.000                      | 94 / 5.761                     |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 94 / 6.378                     | 0 / 0.000                      | 94 / 6.378                     |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total             | 1,341 / 101.792                | 55 / 4.199                     | 58 / 2.986                     | 49 / 2.399                     | 0 / 0.000                      | 49 / 2.399                     | 51 / 3.937                     | 65 / 4.620                     | 94 / 5.761                     | 94 / 6.378                     | Continuing                     | Continuing                     |

**Installation Schedule**

|     | PYS   | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|-----|-------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|-------|-------|
|     |       | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In  | 1,341 | -       | 18 | 18 | 19 | -       | 19 | 19 | 20 | -       | 16 | 16 | 17 | -       | 17 | 17 | 17 | -       | 21 | 22 | 22 | -       | 31 | 31 | 32 | -       | 31 | 31 | 32 | Cont. | Cont. |
| Out | 1,341 | -       | 18 | 18 | 19 | -       | 19 | 19 | 20 | -       | 16 | 16 | 17 | -       | 17 | 17 | 17 | -       | 21 | 22 | 22 | -       | 31 | 31 | 32 | -       | 31 | 31 | 32 | Cont. | Cont. |

**Footnotes:**

<sup>(2)</sup> Quantity changes from year to year are driven by fact-of-life changes to ashore site availability schedules. The variance in unit cost between fiscal years is attributed to the composition of ashore site configurations that NTCSS will be procuring and installing in any given fiscal year. For example, a NTCSS Navy Aviation Squadron (OMA) hardware suite consists of 4 laptop servers, 4 detachment systems

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                | <b>Date:</b> February 2018                                                                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>P-1 Line Item Number / Title:</b><br>2611 / Naval Tact Cmd Supt Sys (NTCSS) | <b>Modification Number / Title:</b><br>1 / 2611 Naval Tactical Command Support System MALS/Shore Equipment Upgrades (DY006) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                | <b>MDAP/MAIS Code:</b>                                                                                                      |
| <p>(for deployment) and 2 squadron printers. The Marine Aviation Logistics Squadron (MALS) ashore sites utilize an NTCSS Virtual Environment (VE) configuration, which allows for the consolidation of multiple systems under a single procurement and installation. A NTCSS MALS hardware suite consists of an IMA rack, 6 laptop servers, 110 laptop workstations, 15 detachment systems (for deployment), 35 IMA printers and 49 squadron printers. The average procurement cost (hardware, software, integration, and engineering support) for an OMA ashore site is approximately \$50K while the average procurement cost for a MALS ashore site is approximately \$650K. FY18 will procure 5 Naval Air Stations, 2 MALS, 31 OMA, 18 SPECWAR and 2 Training/Support sites. FY19, by comparison, will procure 4 Naval Air Stations, 2 MALS, 41 OMA, and 2 Training/Support sites.</p> |                                                                                |                                                                                                                             |



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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                         |                                                                               |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

|                                                          |                                               |                                                 |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0205604N |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years   | FY 2017       | FY 2018       | FY 2019 Base  | FY 2019 OCO  | FY 2019 Total | FY 2020       | FY 2021       | FY 2022       | FY 2023       | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 40.458        | 24.395        | 38.016        | 34.526        | 0.000        | 34.526        | 46.962        | 66.132        | 75.873        | 58.942        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 40.458        | 24.395        | 38.016        | 34.526        | 0.000        | 34.526        | 46.962        | 66.132        | 75.873        | 58.942        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>40.458</b> | <b>24.395</b> | <b>38.016</b> | <b>34.526</b> | <b>0.000</b> | <b>34.526</b> | <b>46.962</b> | <b>66.132</b> | <b>75.873</b> | <b>58.942</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |               |               |               |               |              |               |               |               |               |               |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -             | 0.824         | 5.647         | 1.669         | -            | 1.669         | 1.768         | 1.192         | 0.611         | 0.040         | Continuing        | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                  | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |

## Description:

The Advanced Tactical Data Link Systems (ATDLS) funds the Time Division Multiple Access family of Link 16 terminals including the Multifunctional Information Distribution System - Low Volume Terminal, Multifunctional Information Distribution System - Joint Tactical Radio System, Joint Tactical Information Distribution System (JTIDS) and the Tactical Digital Information Link - Joint (TADIL-J) message standard databases resident in the Command & Control Processor (C2P)/ Common Data Link Management System (CDLMS). ATDLS also funds the Command and Control Processor (C2P) Technology Refresh, Next Generation (NG) C2P (NGC2P) upgrades to meet LHD combat system upgrades, Link-22 capability upgrades, Link 16 terminal upgrades and replacements, Link 16 antenna replacements, Link Monitoring Management Tool, and other ATDLS integration.

Command and Control Processor (C2P) Technology Refresh Full Systems Ship/Shore (DR003): C2P computer processing boards are obsolete and have antiquated software code with no industrial base support. Technology refresh is required for C2P software modernization.

Command and Control Processor (C2P) Amphibious Assault Ship (LHD) Upgrades (DR003): Changes to LHD combat systems starting in FY13 will require NGC2P/CDLMS upgrades in order to maintain critical data link functions including simultaneous processing of Link 11, Link 16 and Joint Range Extension (JRE).

Link 16 Upgrade Kits Ship/Shore (DR012): U.S. Navy surface ships Link 16 JTIDS terminals and Multifunctional Information Distribution System on Ship (MOS) terminals not replaced by MOS Mod by 2025 will be implemented with Frequency Remapping (FR) and Crypto Modernization (CM) mandated upgrades. The product improvement will bring the Link 16 terminals in compliance with the Department of Defense / Department of Transportation Memorandum of Agreement (31DEC02) and updated National Security Agency approved cryptographic algorithms.

Link 16 MOS Modernization (MOS MOD) Replacement Ship/Shore (DR012): All US Navy ships with legacy MOS and JTIDS terminals will have Link 16 terminals replaced with modernized MOS terminals to address legacy Link 16 terminal obsolescence and enable the implementation for future enhancements brought by the MIDS Joint Tactical Radio System (MIDS-J) terminals. MOS Mod units will transition to the use of MIDS-J Current Multi-Netting (CMN) terminal vice MIDS Core terminals.

Link 16 Antenna Replacement (DR012): Existing obsolete dedicated Link 16 shipboard antenna will be replaced.

Link 16 MOS Terminal Controller Central Processing Unit (TC CPU Update): TC CPU update is required to address obsolescence issue in the TC CPU as well as provide mandated transition to Windows 10 operating system. Will be fielded on all MOS equipped ships.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                |                                               | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0205604N                               |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |                                                                               |
| <p>Link Monitoring Management Tool (LMMT) Ship/Shore (DR014): LMMT is required to enable Joint Interface Control Officers (JICOs) to effectively monitor and manage the performance of tactical data link networks. Funds procurement and installation of LMMT hardware on ships and shore sites. The Multifunctional Information Distribution System (MIDS) will also be procured and installed for the CVNs.</p> <p>Advanced Tactical Data Link Systems (ATDLS) Training (DR666): Develop initial end-to-end training curriculum and simulators.</p> |                                               |                                                                               |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                      |                                                                               |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

|                                                          |                                               |                                                 |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0205604N |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Exhibits Schedule |                                          |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                   | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Adv Tact Data Link Sys (ATDLS)       | P-5a        |       |                | - / 35.137                            | - / 9.778                             | - / 10.945                            | - / 8.596                             | - / 0.000                             | - / 8.596                             |
| P-3a              | 1 / Adv Tact Data Link Sys (ATDLS) (TBD) |             |       |                | - / 5.321                             | - / 14.617                            | - / 27.071                            | - / 25.930                            | - / 0.000                             | - / 25.930                            |
| P-40              | Total Gross/Weapon System Cost           |             |       |                | - / 40.458                            | - / 24.395                            | - / 38.016                            | - / 34.526                            | - / 0.000                             | - / 34.526                            |

| Exhibits Schedule |                                          |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
|-------------------|------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                   | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Adv Tact Data Link Sys (ATDLS)       | P-5a        |       |                | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| P-3a              | 1 / Adv Tact Data Link Sys (ATDLS) (TBD) |             |       |                | - / 34.827                            | - / 50.734                            | - / 54.494                            | - / 45.253                            | Continuing                            | Continuing                            |
| P-40              | Total Gross/Weapon System Cost           |             |       |                | - / 46.962                            | - / 66.132                            | - / 75.873                            | - / 58.942                            | Continuing                            | Continuing                            |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

## Justification:

The FY 2019 funding request was reduced by (\$1.023) million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

Advanced Tactical Data Link Systems (ATDLS) procure command and control equipment for both shipboard and shore units including the Multifunctional Information Distribution System on Ship (MOS) Modernization (MOD) Terminals, Link 16 Network Program Antennas, Command and Control Processor (C2P) hardware and software, and Link Monitoring Management Tool (LMMT) hardware and software to address Air Defense System Integrator (ADSI) obsolescence issues.

FY2019: Budget control decrease from FY2018 to FY2019 due to the conclusion of the ATDLS Training (multi-year effort).

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|----------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|---------------|----------------------|---------------------|---------------|------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               | Date: February 2018                                                |                     |               |                      |                     |               |                      |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |  |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               |                      |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                     |               |                      |                     |               |                                                                        |                     |               | MDAP/MAIS Code:      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| Resource Summary                                                                                                                       |  |                     |               | Prior Years          |                     |               | FY 2017                                                                |                     |               | FY 2018              |                     |               | FY 2019 Base                                                       |                     |               | FY 2019 OCO          |                     |               | FY 2019 Total        |  |  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |  |                     |               | -                    |                     |               | -                                                                      |                     |               | -                    |                     |               | -                                                                  |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |  |                     |               | 35.137               |                     |               | 9.778                                                                  |                     |               | 10.945               |                     |               | 8.596                                                              |                     |               | 0.000                |                     |               | 8.596                |  |  |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                                      |                     |               | -                    |                     |               | -                                                                  |                     |               | -                    |                     |               | -                    |  |  |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |  |                     |               | 35.137               |                     |               | 9.778                                                                  |                     |               | 10.945               |                     |               | 8.596                                                              |                     |               | 0.000                |                     |               | 8.596                |  |  |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                                      |                     |               | -                    |                     |               | -                                                                  |                     |               | -                    |                     |               | -                    |  |  |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |  |                     |               | 35.137               |                     |               | 9.778                                                                  |                     |               | 10.945               |                     |               | 8.596                                                              |                     |               | 0.000                |                     |               | 8.596                |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |  |                     |               | -                    |                     |               | -                                                                      |                     |               | -                    |                     |               | -                                                                  |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |  |                     |               | -                    |                     |               | -                                                                      |                     |               | -                    |                     |               | -                                                                  |                     |               | -                    |                     |               | -                    |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| Cost Elements                                                                                                                          |  | Prior Years         |               |                      | FY 2017             |               |                                                                        | FY 2018             |               |                      | FY 2019 Base        |               |                                                                    | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |  |  |
|                                                                                                                                        |  | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                               | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |  |  |
| Flyaway - Adv Tact Data Link Sys (ATDLS) - DR003 C2P Cost                                                                              |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| 1.1.1) C2P - Technology Refresh Full System Shore                                                                                      |  | 982.125             | 8             | 7.857                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 1.1.2) C2P - LHD Upgrade <sup>(†)</sup> (1)                                                                                            |  | 975.000             | 1             | 0.975                | 1,014.000           | 1             | 1.014                                                                  | 1,034.000           | 1             | 1.034                | 481.000             | 1             | 0.481                                                              | -                   | -             | 0.000                | 481.000             | 1             | 0.481                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 8.832                | -                   | -             | 1.014                                                                  | -                   | -             | 1.034                | -                   | -             | 0.481                                                              | -                   | -             | 0.000                | -                   | -             | 0.481                |  |  |
| Subtotal: Flyaway - Adv Tact Data Link Sys (ATDLS) - DR003 C2P Cost                                                                    |  | -                   | -             | 8.832                | -                   | -             | 1.014                                                                  | -                   | -             | 1.034                | -                   | -             | 0.481                                                              | -                   | -             | 0.000                | -                   | -             | 0.481                |  |  |
| Flyaway - Adv Tact Data Link Sys (ATDLS) - DR012 LINK 16 Cost                                                                          |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |  |  |
| 2.1.1) Link 16 - JTIDS CM/FR Ship                                                                                                      |  | 251.000             | 3             | 0.753                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.2) Link 16 - MOS CM/FR Ship <sup>(†)</sup>                                                                                         |  | 74.000              | 2             | 0.148                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.3) Link 16 - MOS CM/FR Shore                                                                                                       |  | 74.000              | 1             | 0.074                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.4) Link 16 - Upgrade Antenna <sup>(†)</sup>                                                                                        |  | 185.000             | 5             | 0.925                | 185.000             | 1             | 0.185                                                                  | 213.000             | 1             | 0.213                | 201.000             | 11            | 2.211                                                              | -                   | -             | 0.000                | 201.000             | 11            | 2.211                |  |  |
| 2.1.5) Link 16 - Antennas (ESB-4) <sup>(†)</sup>                                                                                       |  | -                   | -             | 0.000                | -                   | -             | 0.000                                                                  | 130.000             | 1             | 0.130                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.6) Link 16 - MOS TC <sup>(†)</sup>                                                                                                 |  | -                   | -             | 0.000                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | 32.000              | 23            | 0.736                                                              | -                   | -             | 0.000                | 32.000              | 23            | 0.736                |  |  |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                               |                          |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                      | Date: February 2018                                                |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                               |                          |               |                      |                     |               | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               |                      | Item Number / Title [DODIC]:<br>1 / Adv Tact Data Link Sys (ATDLS) |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                       |                          |               |                      |                     |               |                                                                        |                     |               |                      | MDAP/MAIS Code:     |               |                      |                                                                    |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.         |                          |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                      |                                                                    |               |                      |                     |               |                      |
| Cost Elements                                                                                          | Prior Years              |               |                      | FY 2017             |               |                                                                        | FY 2018             |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO                                                        |               |                      | FY 2019 Total       |               |                      |
|                                                                                                        | Unit Cost<br>(\$ K)      | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
|                                                                                                        | Subtotal: Recurring Cost | -             | -                    | 1.900               | -             | -                                                                      | 0.185               | -             | -                    | 0.343               | -             | -                    | 2.947                                                              | -             | -                    | 0.000               | -             | -                    |
| Subtotal: Flyaway - Adv Tact Data Link Sys (ATDLS) - DR012 LINK 16 Cost                                | -                        | -             | 1.900                | -                   | -             | 0.185                                                                  | -                   | -             | 0.343                | -                   | -             | 2.947                | -                                                                  | -             | 0.000                | -                   | -             | 2.947                |
| Flyaway - Adv Tact Data Link Sys (ATDLS) - DR014 LINK MONITORING MANAGEMENT TOOL (LMMT) Cost           |                          |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                      |                                                                    |               |                      |                     |               |                      |
| Recurring Cost                                                                                         |                          |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                      |                                                                    |               |                      |                     |               |                      |
| 3.1.1) LMMT - Ship (L Class)(†)                                                                        | -                        | -             | 0.000                | 130.000             | 10            | 1.300                                                                  | 133.000             | 9             | 1.197                | 135.000             | 1             | 0.135                | -                                                                  | -             | 0.000                | 135.000             | 1             | 0.135                |
| 3.1.2) LMMT - Shore(†)                                                                                 | 151.000                  | 15            | 2.265                | 93.000              | 18            | 1.674                                                                  | 95.000              | 4             | 0.380                | 101.000             | 1             | 0.101                | -                                                                  | -             | 0.000                | 101.000             | 1             | 0.101                |
| Subtotal: Recurring Cost                                                                               | -                        | -             | 2.265                | -                   | -             | 2.974                                                                  | -                   | -             | 1.577                | -                   | -             | 0.236                | -                                                                  | -             | 0.000                | -                   | -             | 0.236                |
| Subtotal: Flyaway - Adv Tact Data Link Sys (ATDLS) - DR014 LINK MONITORING MANAGEMENT TOOL (LMMT) Cost | -                        | -             | 2.265                | -                   | -             | 2.974                                                                  | -                   | -             | 1.577                | -                   | -             | 0.236                | -                                                                  | -             | 0.000                | -                   | -             | 0.236                |
| Flyaway - INSTALLATION - DR776 NON-FMP Cost                                                            |                          |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                      |                                                                    |               |                      |                     |               |                      |
| Recurring Cost                                                                                         |                          |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                      |                                                                    |               |                      |                     |               |                      |
| 4.1.1) C2P - Technology Refresh Full System Shore Install                                              | -                        | -             | 2.730                | -                   | -             | 0.546                                                                  | -                   | -             | 1.310                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.2) C2P - Technology Refresh Full System Shore Design                                               | -                        | -             | 0.803                | -                   | -             | 0.155                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.3) Link 16 - JTIDS CM/FR Shore Install                                                             | -                        | -             | 0.000                | -                   | -             | 0.210                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.4) Link 16 - JTIDS CM/FR Shore Design                                                              | -                        | -             | 0.241                | -                   | -             | 0.022                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.5) Link 16 - MOS CM/FR Shore Install                                                               | -                        | -             | 0.000                | -                   | -             | 0.042                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.7) Link 16 - MOS MOD Shore Install                                                                 | -                        | -             | 0.000                | -                   | -             | 0.960                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.8) Link 16 - MOS MOD Shore Design                                                                  | -                        | -             | 0.155                | -                   | -             | 0.052                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                | -                                                                  | -             | 0.000                | -                   | -             | 0.000                |
| 4.1.9) LMMT - Shore Install                                                                            | -                        | -             | 2.565                | -                   | -             | 1.350                                                                  | -                   | -             | 0.308                | -                   | -             | 0.079                | -                                                                  | -             | 0.000                | -                   | -             | 0.079                |
| 4.1.10) LMMT - Shore Design                                                                            | -                        | -             | 0.645                | -                   | -             | 0.120                                                                  | -                   | -             | 0.060                | -                   | -             | 0.051                | -                                                                  | -             | 0.000                | -                   | -             | 0.051                |
| Subtotal: Recurring Cost                                                                               | -                        | -             | 7.139                | -                   | -             | 3.457                                                                  | -                   | -             | 1.678                | -                   | -             | 0.130                | -                                                                  | -             | 0.000                | -                   | -             | 0.130                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               | Date: February 2018                                                |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                       |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                                        |                     |               | MDAP/MAIS Code:      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                                        | FY 2018             |               |                      | FY 2019 Base        |               |                                                                    | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                               | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Subtotal: Flyaway -<br>INSTALLATION - DR776<br>NON-FMP Cost                                    | -                   | -             | 7.139                | -                   | -             | 3.457                                                                  | -                   | -             | 1.678                | -                   | -             | 0.130                                                              | -                   | -             | 0.000                | -                   | -             | 0.130                |
| Flyaway - INSTALLATION - DR777 FMP Cost                                                        |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| 5.1.1) C2P - LHD<br>Upgrade Install                                                            | -                   | -             | 0.330                | -                   | -             | 0.000                                                                  | -                   | -             | 0.655                | -                   | -             | 0.687                                                              | -                   | -             | 0.000                | -                   | -             | 0.687                |
| 5.1.2) C2P - LHD<br>Upgrade Design                                                             | -                   | -             | 0.499                | -                   | -             | 0.102                                                                  | -                   | -             | 0.122                | -                   | -             | 0.159                                                              | -                   | -             | 0.000                | -                   | -             | 0.159                |
| 5.1.3) Link 16 - JTIDS<br>CM/FR Ship Install                                                   | -                   | -             | 0.000                | -                   | -             | 0.084                                                                  | -                   | -             | 0.086                | -                   | -             | 0.166                                                              | -                   | -             | 0.000                | -                   | -             | 0.166                |
| 5.1.4) Link 16 - JTIDS<br>CM/FR Ship Design                                                    | -                   | -             | 0.200                | -                   | -             | 0.048                                                                  | -                   | -             | 0.250                | -                   | -             | 0.147                                                              | -                   | -             | 0.000                | -                   | -             | 0.147                |
| 5.1.5) Link 16 - MOS<br>CM/FR Ship Install                                                     | -                   | -             | 0.000                | -                   | -             | 0.084                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 5.1.7) Link 16 -<br>Upgrade Antenna<br>Install                                                 | -                   | -             | 0.779                | -                   | -             | 0.000                                                                  | -                   | -             | 0.205                | -                   | -             | 0.220                                                              | -                   | -             | 0.000                | -                   | -             | 0.220                |
| 5.1.8) Link 16 -<br>Upgrade Antenna<br>Design                                                  | -                   | -             | 0.378                | -                   | -             | 0.026                                                                  | -                   | -             | 0.035                | -                   | -             | 0.266                                                              | -                   | -             | 0.000                | -                   | -             | 0.266                |
| 5.1.10) Link 16 -<br>Antenna (ESB)                                                             | -                   | -             | 0.000                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.175                                                              | -                   | -             | 0.000                | -                   | -             | 0.175                |
| 5.1.11) LMMT - Ship<br>(L Class) Install                                                       | -                   | -             | 0.000                | -                   | -             | 0.400                                                                  | -                   | -             | 0.714                | -                   | -             | 1.818                                                              | -                   | -             | 0.000                | -                   | -             | 1.818                |
| 5.1.12) LMMT - Ship<br>(L Class) Design                                                        | -                   | -             | 0.060                | -                   | -             | 0.158                                                                  | -                   | -             | 0.169                | -                   | -             | 0.170                                                              | -                   | -             | 0.000                | -                   | -             | 0.170                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 2.246                | -                   | -             | 0.902                                                                  | -                   | -             | 2.236                | -                   | -             | 3.808                                                              | -                   | -             | 0.000                | -                   | -             | 3.808                |
| Subtotal: Flyaway -<br>INSTALLATION - DR777<br>FMP Cost                                        | -                   | -             | 2.246                | -                   | -             | 0.902                                                                  | -                   | -             | 2.236                | -                   | -             | 3.808                                                              | -                   | -             | 0.000                | -                   | -             | 3.808                |
| Flyaway - ATDLS Consolidated Prior Year Requirements Cost                                      |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| 6.1.1) ATDLS -<br>Consolidated Prior<br>Year Requirements                                      | -                   | -             | 3.841                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 3.841                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Flyaway - ATDLS<br>Consolidated Prior Year<br>Requirements Cost                      | -                   | -             | 3.841                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Support - DR555 PRODUCTION SUPPORT Cost                                                        |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                              |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               | Date: February 2018                                                |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                                                                                                                                                                                                                              |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Adv Tact Data Link Sys (ATDLS) |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                      |                     |               |                      |                     |               |                                                                        |                     |               |                      | MDAP/MAIS Code:     |               |                                                                    |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                        |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                                                                                                                                                                                                                         | Prior Years         |               |                      | FY 2017             |               |                                                                        | FY 2018             |               |                      | FY 2019 Base        |               |                                                                    | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                                                                                                                                                                                                       | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                               | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 7.1) C2P - Technology Refresh Full System Shore Production Support                                                                                                                                                                                                                                                                    | -                   | -             | 0.373                | -                   | -             | 0.049                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 7.2) C2P - LHD Upgrade Production Support                                                                                                                                                                                                                                                                                             | -                   | -             | 0.096                | -                   | -             | 0.051                                                                  | -                   | -             | 0.052                | -                   | -             | 0.132                                                              | -                   | -             | 0.000                | -                   | -             | 0.132                |
| 7.3) Link 16 - JTIDS CM/FR Ship Production Support                                                                                                                                                                                                                                                                                    | -                   | -             | 0.100                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 7.4) Link 16 - MOS CM/FR Ship Production Support                                                                                                                                                                                                                                                                                      | -                   | -             | 0.007                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 7.5) Link 16 - MOS CM/FR Shore Production Support                                                                                                                                                                                                                                                                                     | -                   | -             | 0.004                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 7.6) Link 16 - MOS MOD Shore Production Support                                                                                                                                                                                                                                                                                       | -                   | -             | 0.074                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 7.7) Link 16 - Upgrade Antenna Production Support                                                                                                                                                                                                                                                                                     | -                   | -             | 0.151                | -                   | -             | 0.007                                                                  | -                   | -             | 0.007                | -                   | -             | 0.118                                                              | -                   | -             | 0.000                | -                   | -             | 0.118                |
| 7.8) Link 16 MOS TC Production Support                                                                                                                                                                                                                                                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                                                                  | -                   | -             | 0.000                | -                   | -             | 0.475                                                              | -                   | -             | 0.000                | -                   | -             | 0.475                |
| 7.9) LMMT Ship - (L Class) Production Support                                                                                                                                                                                                                                                                                         | -                   | -             | 0.000                | -                   | -             | 0.097                                                                  | -                   | -             | 0.413                | -                   | -             | 0.220                                                              | -                   | -             | 0.000                | -                   | -             | 0.220                |
| 7.10) LMMT - Shore Production Support                                                                                                                                                                                                                                                                                                 | -                   | -             | 0.041                | -                   | -             | 0.042                                                                  | -                   | -             | 0.034                | -                   | -             | 0.049                                                              | -                   | -             | 0.000                | -                   | -             | 0.049                |
| Subtotal: Support - DR555 PRODUCTION SUPPORT Cost                                                                                                                                                                                                                                                                                     | -                   | -             | 0.846                | -                   | -             | 0.246                                                                  | -                   | -             | 0.506                | -                   | -             | 0.994                                                              | -                   | -             | 0.000                | -                   | -             | 0.994                |
| Support - DR666 ATDLS Training Cost                                                                                                                                                                                                                                                                                                   |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| 8.1) ATDLS Training                                                                                                                                                                                                                                                                                                                   | -                   | -             | 8.068                | -                   | -             | 1.000                                                                  | -                   | -             | 3.571                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Support - DR666 ATDLS Training Cost                                                                                                                                                                                                                                                                                         | -                   | -             | 8.068                | -                   | -             | 1.000                                                                  | -                   | -             | 3.571                | -                   | -             | 0.000                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                              | -                   | -             | 35.137               | -                   | -             | 9.778                                                                  | -                   | -             | 10.945               | -                   | -             | 8.596                                                              | -                   | -             | 0.000                | -                   | -             | 8.596                |
| Remarks:<br>BLI 2614 procures data link components (e.g. circuit cards, routers, antennas, shock mounts, etc.) to replace obsolete ones. There is integration and testing of these components lasting 6-9 months, which causes procurements to be installed in the following fiscal year.<br><br>(†) indicates the presence of a P-5a |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |

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| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                 |                                                                               | <b>Date:</b> February 2018                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) | <b>Item Number / Title [DODIC]:</b><br>1 / Adv Tact Data Link Sys (ATDLS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                                                               | <b>MDAP/MAIS Code:</b>                                                    |

### Footnotes:

(1) Change in unit cost from FY18 to FY19 reflects updated cost estimate for production contract awarding in FY19.



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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |             |      |                                                                        |                                      |                 |               |                              | Date: February 2018                                                |                            |                        |                               |                   |
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| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |             |      | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                                      |                 |               |                              | Item Number / Title [DODIC]:<br>1 / Adv Tact Data Link Sys (ATDLS) |                            |                        |                               |                   |
| Cost Elements                                                            | O<br>C<br>O | FY   | Contractor and Location                                                | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i>                                               | Unit Cost<br><i>(\$ K)</i> | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1.1.2) C2P - LHD Upgrade                                                 |             | 2017 | IDIQ/MAC/FFP / San Diego                                               | C / FFP                              | SPAWAR          | Feb 2017      | Jul 2017                     | 1                                                                  | 1,014.000                  | Y                      |                               | Mar 2016          |
| 1.1.2) C2P - LHD Upgrade                                                 |             | 2018 | SSC PAC / San Diego, CA                                                | WR                                   | SPAWAR          | Jun 2018      | Jun 2019                     | 1                                                                  | 1,034.000                  | Y                      |                               | Sep 2017          |
| 1.1.2) C2P - LHD Upgrade                                                 |             | 2019 | IDIQ/MAC/FFP / TBD                                                     | C / TBD                              | SPAWAR          | Feb 2019      | Feb 2020                     | 1                                                                  | 481.000                    | Y                      |                               | Jan 2018          |
| 2.1.2) Link 16 - MOS CM/FR Ship                                          |             | 2016 | Data Link Solutions / Cedar Rapids, IA                                 | C / FFP                              | SPAWAR          | Jun 2016      | Dec 2016                     | 2                                                                  | 74.000                     | Y                      |                               |                   |
| 2.1.4) Link 16 - Upgrade Antenna                                         |             | 2017 | SPAWAR Pacific / San Diego                                             | WR                                   | SPAWAR          | Jan 2017      | Oct 2017                     | 1                                                                  | 185.000                    | Y                      |                               | Jun 2014          |
| 2.1.4) Link 16 - Upgrade Antenna                                         |             | 2018 | SPAWAR Pacific / San Diego                                             | WR                                   | SPAWAR          | Jan 2018      | Oct 2018                     | 1                                                                  | 213.000                    | Y                      |                               | Jun 2014          |
| 2.1.4) Link 16 - Upgrade Antenna                                         |             | 2019 | SPAWAR Pacific / San Diego                                             | WR                                   | SPAWAR          | Jan 2019      | Oct 2019                     | 11                                                                 | 201.000                    | Y                      |                               | Jun 2014          |
| 2.1.5) Link 16 - Antennas (ESB-4)                                        |             | 2018 | Naval Surface Warfare Center<br>Dahlgren / Dahlgren, Va                | WR                                   | Dahlgren        | May 2018      | Feb 2019                     | 1                                                                  | 130.000                    | Y                      |                               |                   |
| 2.1.6) Link 16 - MOS TC                                                  |             | 2019 | TBD / TBD                                                              | C / TBD                              | SPAWAR          | Jun 2019      | Dec 2019                     | 23                                                                 | 32.000                     | Y                      |                               | Mar 2018          |
| 3.1.1) LMMT - Ship (L Class)                                             |             | 2017 | Venesco / Chantilly / Virginia                                         | C / FFP                              | SPAWAR          | Jun 2017      | Sep 2017                     | 10                                                                 | 130.000                    | Y                      |                               | Apr 2017          |
| 3.1.1) LMMT - Ship (L Class)                                             |             | 2018 | Venesco / Chantilly / Virginia                                         | C / FFP                              | SPAWAR          | Nov 2017      | Feb 2018                     | 9                                                                  | 133.000                    | Y                      |                               | Oct 2017          |
| 3.1.1) LMMT - Ship (L Class)                                             |             | 2019 | Venesco / Chantilly / Virginia                                         | C / FFP                              | SPAWAR          | Nov 2018      | Feb 2019                     | 1                                                                  | 135.000                    | Y                      |                               | Oct 2017          |
| 3.1.2) LMMT - Shore                                                      |             | 2017 | Venesco / Chantilly / Virginia                                         | C / FFP                              | SPAWAR          | Jun 2017      | Sep 2017                     | 18                                                                 | 93.000                     | Y                      |                               | Apr 2017          |
| 3.1.2) LMMT - Shore                                                      |             | 2018 | Venesco / Chantilly / Virginia                                         | C / FFP                              | SPAWAR          | Nov 2017      | Feb 2018                     | 4                                                                  | 95.000                     | Y                      |                               | Apr 2017          |
| 3.1.2) LMMT - Shore                                                      |             | 2019 | Venesco / Chantilly / Virginia                                         | C / FFP                              | SPAWAR          | Nov 2018      | Feb 2019                     | 1                                                                  | 101.000                    | Y                      |                               | Apr 2017          |
|                                                                          |             |      |                                                                        |                                      |                 |               |                              |                                                                    |                            |                        |                               |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                               |  | <b>Date:</b> February 2018 |  |                                                                           |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) |  |                            |  | <b>Modification Number / Title:</b><br>1 / Adv Tact Data Link Sys (ATDLS) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 5.321       | 14.617  | 27.071  | 25.930       | 0.000       | 25.930          | 34.827  | 50.734  | 54.494  | 45.253  | Continuing  | Continuing |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 5.321       | 14.617  | 27.071  | 25.930       | 0.000       | 25.930          | 34.827  | 50.734  | 54.494  | 45.253  | Continuing  | Continuing |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 5.321       | 14.617  | 27.071  | 25.930       | 0.000       | 25.930          | 34.827  | 50.734  | 54.494  | 45.253  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

Command and Control Processor (C2P) Technology Refresh Full Systems Ship: C2P computer processing boards are obsolete and have antiquated software code with no industrial base support. Technology refresh is required for C2P software modernization. Additionally, C2P configuration is not shock qualified. Full Systems upgrades are required to achieve 901D shock certification.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                          |                                |                                |                                                                        |                                |                                |                                |                                | Date: February 2018                                                |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7     |                                |                                | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                                |                                |                                |                                | Modification Number / Title:<br>1 / Adv Tact Data Link Sys (ATDLS) |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                             |                                |                                |                                                                        |                                |                                |                                | MDAP/MAIS Code:                |                                                                    |                                |                                |                                |                                |
| Models of Systems Affected: [No Model Specified]                             |                                |                                | Modification Type: TBD                                                 |                                |                                |                                |                                | Related RDT&E PEs: 0205604N                                        |                                |                                |                                |                                |
| Financial Plan                                                               | Prior Years                    | FY 2017                        | FY 2018                                                                | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                            | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                  |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Modification Item 1 of 1: Adv Tact Data Link Sys (ATDLS)                     |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| B Kits                                                                       |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Recurring                                                                    |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| 1.1.1) Link 16 - MOS MOD Ship - NonOrganic                                   | - / -                          | 3 / 2.469                      | - / -                                                                  | 1 / 0.760                      | - / -                          | 1 / 0.760                      | 14 / 10.640                    | 38 / 28.120                                                        | 30 / 22.200                    | 22 / 10.450                    | - / -                          | 108 / 74.639                   |
| 1.1.2) C2P - Technology Refresh Full System Ship - NonOrganic <sup>(2)</sup> | 5 / 4.970                      | 4 / 4.056                      | 15 / 15.510                                                            | 8 / 7.648                      | - / -                          | 8 / 7.648                      | 10 / 9.760                     | 3 / 2.988                                                          | 3 / 3.051                      | 10 / 10.370                    | - / -                          | 58 / 58.353                    |
| 1.1.3) LMMT - Ship (CVN) - NonOrganic <sup>(3)</sup>                         | - / -                          | 6 / 4.818                      | 4 / 3.224                                                              | 1 / 0.623                      | - / -                          | 1 / 0.623                      | - / -                          | - / -                                                              | 2 / 1.246                      | 3 / 1.869                      | - / -                          | 16 / 11.780                    |
| Subtotal: Recurring                                                          | - / 4.970                      | - / 11.343                     | - / 18.734                                                             | - / 9.031                      | - / -                          | - / 9.031                      | - / 20.400                     | - / 31.108                                                         | - / 26.497                     | - / 22.689                     | - / 0.000                      | - / 144.772                    |
| Subtotal: Adv Tact Data Link Sys (ATDLS)                                     | 5 / 4.970                      | 13 / 11.343                    | 19 / 18.734                                                            | 10 / 9.031                     | - / -                          | 10 / 9.031                     | 24 / 20.400                    | 41 / 31.108                                                        | 35 / 26.497                    | 35 / 22.689                    | - / -                          | 182 / 144.772                  |
| Subtotal: Procurement, All Modification Items                                | - / 4.970                      | - / 11.343                     | - / 18.734                                                             | - / 9.031                      | - / -                          | - / 9.031                      | - / 20.400                     | - / 31.108                                                         | - / 26.497                     | - / 22.689                     | - / 0.000                      | - / 144.772                    |
| Support (All Modification Items)                                             |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| 2.1) Link 16 - MOS MOD Ship DSA                                              | - / 0.000                      | - / 0.059                      | - / 0.220                                                              | - / 0.990                      | - / 0.000                      | - / 0.990                      | - / 3.945                      | - / 1.032                                                          | - / 0.450                      | - / 0.250                      | - / -                          | - / 6.946                      |
| 2.2) Link 16 - MOS MOD Ship Production Support                               | - / 0.000                      | - / 0.054                      | - / 0.000                                                              | - / 0.570                      | - / 0.000                      | - / 0.570                      | - / 0.543                      | - / 0.260                                                          | - / 0.235                      | - / 0.240                      | - / -                          | - / 1.902                      |
| 2.3) C2P - Technology Refresh Full System Ship DSA                           | - / 0.102                      | - / 0.137                      | - / 0.754                                                              | - / 0.756                      | - / 0.000                      | - / 0.756                      | - / 1.750                      | - / 0.949                                                          | - / 0.527                      | - / 0.275                      | - / -                          | - / 5.250                      |
| 2.4) C2P - Techonology Refresh Full System Ship Production Support           | - / 0.249                      | - / 0.036                      | - / 0.521                                                              | - / 0.550                      | - / 0.000                      | - / 0.550                      | - / 0.523                      | - / 0.487                                                          | - / 0.497                      | - / 0.100                      | - / -                          | - / 2.963                      |
| 2.5) LMMT - Ship (CVN) Production Support                                    | - / 0.000                      | - / 0.117                      | - / 0.450                                                              | - / 0.344                      | - / 0.000                      | - / 0.344                      | - / 0.050                      | - / 0.000                                                          | - / 0.055                      | - / 0.061                      | - / -                          | - / 1.077                      |
| 2.6) LMMT - Ship (CVN) DSA                                                   | - / 0.000                      | - / 0.141                      | - / 0.097                                                              | - / 0.051                      | - / 0.000                      | - / 0.051                      | - / 0.078                      | - / 0.078                                                          | - / 0.062                      | - / 0.065                      | - / -                          | - / 0.572                      |
| Subtotal: Support                                                            | - / 0.351                      | - / 0.544                      | - / 2.042                                                              | - / 3.261                      | - / -                          | - / 3.261                      | - / 6.889                      | - / 2.806                                                          | - / 1.826                      | - / 0.991                      | - / 0.000                      | - / 18.710                     |
| Installation                                                                 |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Modification Item 1 of 1: Adv Tact Data Link Sys (ATDLS)                     | - / 0.000                      | - / 2.730                      | - / 6.295                                                              | - / 13.638                     | - / 0.000                      | - / 13.638                     | - / 7.538                      | - / 16.820                                                         | - / 26.171                     | - / 21.573                     | Continuing                     | Continuing                     |
| Subtotal: Installation                                                       | - / 0.000                      | - / 2.730                      | - / 6.295                                                              | - / 13.638                     | - / -                          | - / 13.638                     | - / 7.538                      | - / 16.820                                                         | - / 26.171                     | - / 21.573                     | Continuing                     | Continuing                     |
| Total                                                                        |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                            | 5.321                          | 14.617                         | 27.071                                                                 | 25.930                         | 0.000                          | 25.930                         | 34.827                         | 50.734                                                             | 54.494                         | 45.253                         | Continuing                     | Continuing                     |
|                                                                              |                                |                                |                                                                        |                                |                                |                                |                                |                                                                    |                                |                                |                                |                                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                |                |                                                                               |                                              | <b>Date:</b> February 2018 |                                                                           |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |                |                | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) |                                              |                            | <b>Modification Number / Title:</b><br>1 / Adv Tact Data Link Sys (ATDLS) |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                |                |                                                                               |                                              | <b>MDAP/MAIS Code:</b>     |                                                                           |                |
| <b>Modification Item 1 of 1:</b> Adv Tact Data Link Sys (ATDLS)                 |                |                |                                                                               |                                              |                            |                                                                           |                |
| <b>Manufacturer Information</b>                                                 |                |                |                                                                               |                                              |                            |                                                                           |                |
| Manufacturer Name: Data Link Solutions                                          |                |                |                                                                               | Manufacturer Location: Cedar Rapids, Indiana |                            |                                                                           |                |
| Administrative Leadtime ( <i>in Months</i> ): 4                                 |                |                |                                                                               | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                           |                |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                            | <b>FY 2023</b> |
| Contract Dates                                                                  | Jun 2017       |                | Feb 2019                                                                      |                                              |                            |                                                                           |                |
| Delivery Dates                                                                  | Jun 2018       |                | Feb 2020                                                                      |                                              |                            |                                                                           |                |
| Manufacturer Name: TBD                                                          |                |                |                                                                               | Manufacturer Location: TBD                   |                            |                                                                           |                |
| Administrative Leadtime ( <i>in Months</i> ): 4                                 |                |                |                                                                               | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                           |                |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                            | <b>FY 2023</b> |
| Contract Dates                                                                  |                |                | Feb 2019                                                                      |                                              |                            |                                                                           |                |
| Delivery Dates                                                                  |                |                | Feb 2020                                                                      |                                              |                            |                                                                           |                |
| Manufacturer Name: General Dynamics                                             |                |                |                                                                               | Manufacturer Location: San Diego, CA         |                            |                                                                           |                |
| Administrative Leadtime ( <i>in Months</i> ): 2                                 |                |                |                                                                               | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                           |                |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                            | <b>FY 2023</b> |
| Contract Dates                                                                  | Dec 2016       |                |                                                                               |                                              |                            |                                                                           |                |
| Delivery Dates                                                                  | Dec 2017       |                |                                                                               |                                              |                            |                                                                           |                |
| Manufacturer Name: SSC PAC                                                      |                |                |                                                                               | Manufacturer Location: San Diego, CA         |                            |                                                                           |                |
| Administrative Leadtime ( <i>in Months</i> ): 8                                 |                |                |                                                                               | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                           |                |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                            | <b>FY 2023</b> |
| Contract Dates                                                                  |                | Jun 2018       |                                                                               |                                              |                            |                                                                           |                |
| Delivery Dates                                                                  |                | Jun 2019       |                                                                               |                                              |                            |                                                                           |                |
| Manufacturer Name: Venesco Chantilly                                            |                |                |                                                                               | Manufacturer Location: Virginia              |                            |                                                                           |                |
| Administrative Leadtime ( <i>in Months</i> ): 8                                 |                |                |                                                                               | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                           |                |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                            | <b>FY 2023</b> |
| Contract Dates                                                                  | Jun 2017       | Jun 2018       | Jun 2019                                                                      |                                              |                            |                                                                           |                |
| Delivery Dates                                                                  | Sep 2017       | Jun 2019       | Jun 2020                                                                      |                                              |                            |                                                                           |                |

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|                                                                                                                  |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
|------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------------|--------------------------------|--------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|-------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                       |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                | <b>Date:</b> February 2018                                                |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                  |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>1 / Adv Tact Data Link Sys (ATDLS) |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                          |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                                    |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Modification Item 1 of 1:</b> Adv Tact Data Link Sys (ATDLS)                                                  |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Installation Information</b>                                                                                  |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Link 16 - MOS MOD Ship                    |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Installation Cost</b>                                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                            | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                            | <b>To Complete</b>             | <b>Total</b>                   |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
|                                                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| Prior Years                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2017                                                                                                          | - / -                          | - / -                          | 3 / 1.035                      | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | 0 / 0.000                      | 3 / 1.035                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2018                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2019                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | 1 / 0.625                      | - / -                          | - / -                          | - / -                                                                     | 0 / 0.000                      | 1 / 0.625                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2020                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | 14 / 8.750                     | - / -                          | - / -                                                                     | 0 / 0.000                      | 14 / 8.750                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2021                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | 38 / 23.750                    | - / -                                                                     | 0 / 0.000                      | 38 / 23.750                    |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2022                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | 30 / 18.750                                                               | Continuing                     | Continuing                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2023                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | Continuing                     | Continuing                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| To Complete                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| Total                                                                                                            | - / -                          | - / -                          | 3 / 1.035                      | - / -                          | - / -                                                                         | - / -                          | 1 / 0.625                      | 14 / 8.750                     | 38 / 23.750                    | 30 / 18.750                                                               | Continuing                     | Continuing                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Installation Schedule</b>                                                                                     |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
|                                                                                                                  | <b>PYS</b>                     | <b>FY 2017</b>                 |                                |                                |                                                                               | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                            |                                |                                |           | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |       |
|                                                                                                                  |                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                                     | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                                 | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |       |
| In                                                                                                               | -                              | -                              | -                              | -                              | -                                                                             | -                              | -                              | 3                              | -                              | -                                                                         | -                              | -                              | -         | -              | -         | 1         | -         | -              | -         | -         | 7         | 7              | -         | -         | 19        | 19             | -         | -         | 15        | 15        | Cont.      | Cont. |
| Out                                                                                                              | -                              | -                              | -                              | -                              | -                                                                             | -                              | -                              | -                              | 3                              | -                                                                         | -                              | -                              | -         | -              | -         | -         | 1         | -              | -         | -         | 7         | 7              | -         | -         | 19        | 19             | -         | -         | 15        | 15        | Cont.      | Cont. |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: C2P - Technology Refresh Full System Ship |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                           |                                |                                |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| <b>Installation Cost</b>                                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                            | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                            | <b>To Complete</b>             | <b>Total</b>                   |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
|                                                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| Prior Years                                                                                                      | - / -                          | 5 / 2.730                      | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | 0 / 0.000                      | 5 / 2.730                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2017                                                                                                          | - / -                          | - / -                          | 4 / 2.620                      | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | 0 / 0.000                      | 4 / 2.620                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2018                                                                                                          | - / -                          | - / -                          | - / -                          | 15 / 11.850                    | 0 / 0.000                                                                     | 15 / 11.850                    | - / -                          | - / -                          | - / -                          | - / -                                                                     | 0 / 0.000                      | 15 / 11.850                    |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2019                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | 8 / 6.456                      | - / -                          | - / -                          | - / -                                                                     | 0 / 0.000                      | 8 / 6.456                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2020                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | 10 / 8.070                     | - / -                          | - / -                                                                     | 0 / 0.000                      | 10 / 8.070                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2021                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | 3 / 2.421                      | - / -                                                                     | 0 / 0.000                      | 3 / 2.421                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2022                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 2.421                                                                 | 0 / 0.000                      | 3 / 2.421                      |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| FY 2023                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | Continuing                     | Continuing                     |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |
| To Complete                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |       |

## UNCLASSIFIED

|                                                                                                           |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
|-----------------------------------------------------------------------------------------------------------|-----|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------|-----------------|----|----|---------|----|--------------------------------------------------------------------|----|---------|----|----|----|---------|----|----|----|-------|-------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                       |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        | Date: February 2018            |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                  |     |                                |                                |                                |                                |                                |                                |                                |                                | P-1 Line Item Number / Title:<br>2614 / Adv Tact Data Link Sys (ATDLS) |                                |                                |                                |         |                 |    |    |         |    | Modification Number / Title:<br>1 / Adv Tact Data Link Sys (ATDLS) |    |         |    |    |    |         |    |    |    |       |       |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                          |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         | MDAP/MAIS Code: |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Modification Item 1 of 1: Adv Tact Data Link Sys (ATDLS)                                                  |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Installation Information                                                                                  |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Method of Implementation: [none specified]:: Installation Name: C2P - Technology Refresh Full System Ship |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Installation Cost                                                                                         |     | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                                | FY 2023                        | To Complete                    | Total                          |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
|                                                                                                           |     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Total                                                                                                     |     | - / -                          | 5 / 2.730                      | 4 / 2.620                      | 15 / 11.850                    | 0 / 0.000                      | 15 / 11.850                    | 8 / 6.456                      | 10 / 8.070                     | 3 / 2.421                                                              | 3 / 2.421                      | Continuing                     | Continuing                     |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Installation Schedule                                                                                     |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
|                                                                                                           | PYS | FY 2017                        |                                |                                |                                | FY 2018                        |                                |                                |                                | FY 2019                                                                |                                |                                |                                | FY 2020 |                 |    |    | FY 2021 |    |                                                                    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|                                                                                                           |     | Q1                             | Q2                             | Q3                             | Q4                             | Q1                             | Q2                             | Q3                             | Q4                             | Q1                                                                     | Q2                             | Q3                             | Q4                             | Q1      | Q2              | Q3 | Q4 | Q1      | Q2 | Q3                                                                 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In                                                                                                        | -   | -                              | -                              | -                              | 1                              | 4                              | 1                              | -                              | 3                              | -                                                                      | -                              | 6                              | 9                              | -       | 2               | 2  | 4  | -       | -  | 4                                                                  | 6  | -       | -  | 1  | 2  | -       | -  | 2  | 1  | Cont. | Cont. |
| Out                                                                                                       | -   | -                              | -                              | -                              | 1                              | -                              | 5                              | -                              | -                              | 3                                                                      | -                              | -                              | 6                              | 9       | -               | 2  | 2  | 4       | -  | -                                                                  | 4  | 6       | -  | -  | 1  | 2       | -  | -  | 2  | Cont. | Cont. |
| Method of Implementation: [none specified]:: Installation Name: LMMT - Ship (CVN)                         |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Installation Cost                                                                                         |     | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                                | FY 2023                        | To Complete                    | Total                          |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
|                                                                                                           |     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Prior Years                                                                                               |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | - / -                          |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2017                                                                                                   |     | - / -                          | - / -                          | 6 / 2.640                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | 0 / 0.000                      | 6 / 2.640                      |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2018                                                                                                   |     | - / -                          | - / -                          | - / -                          | 4 / 1.788                      | 0 / 0.000                      | 4 / 1.788                      | - / -                          | - / -                          | - / -                                                                  | - / -                          | 0 / 0.000                      | 4 / 1.788                      |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2019                                                                                                   |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.457                      | - / -                          | - / -                                                                  | - / -                          | 0 / 0.000                      | 1 / 0.457                      |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2020                                                                                                   |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | - / -                          |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2021                                                                                                   |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | - / -                          |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2022                                                                                                   |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | 2 / 0.402                      | 0 / 0.000                      | 2 / 0.402                      |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| FY 2023                                                                                                   |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | Continuing                     | Continuing                     |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| To Complete                                                                                               |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | - / -                          |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Total                                                                                                     |     | - / -                          | - / -                          | 6 / 2.640                      | 4 / 1.788                      | 0 / 0.000                      | 4 / 1.788                      | 1 / 0.457                      | - / -                          | - / -                                                                  | 2 / 0.402                      | Continuing                     | Continuing                     |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
| Installation Schedule                                                                                     |     |                                |                                |                                |                                |                                |                                |                                |                                |                                                                        |                                |                                |                                |         |                 |    |    |         |    |                                                                    |    |         |    |    |    |         |    |    |    |       |       |
|                                                                                                           | PYS | FY 2017                        |                                |                                |                                | FY 2018                        |                                |                                |                                | FY 2019                                                                |                                |                                |                                | FY 2020 |                 |    |    | FY 2021 |    |                                                                    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|                                                                                                           |     | Q1                             | Q2                             | Q3                             | Q4                             | Q1                             | Q2                             | Q3                             | Q4                             | Q1                                                                     | Q2                             | Q3                             | Q4                             | Q1      | Q2              | Q3 | Q4 | Q1      | Q2 | Q3                                                                 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In                                                                                                        | -   | -                              | -                              | -                              | -                              | -                              | -                              | 6                              | -                              | -                                                                      | -                              | -                              | 4                              | -       | -               | -  | 1  | -       | -  | -                                                                  | -  | -       | -  | -  | -  | -       | -  | 2  | -  | Cont. | Cont. |
| Out                                                                                                       | -   | -                              | -                              | -                              | -                              | -                              | -                              | -                              | 6                              | -                                                                      | -                              | -                              | 4                              | -       | -               | -  | 1  | -       | -  | -                                                                  | -  | -       | -  | -  | -  | -       | -  | -  | 2  | Cont. | Cont. |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                               |                                                                               | <b>Date:</b> February 2018                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                          | <b>P-1 Line Item Number / Title:</b><br>2614 / Adv Tact Data Link Sys (ATDLS) | <b>Modification Number / Title:</b><br>1 / Adv Tact Data Link Sys (ATDLS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                  |                                                                               | <b>MDAP/MAIS Code:</b>                                                    |
| <b>Footnotes:</b><br>(2) Change in unit cost from FY18 to FY19 reflects updated cost estimate for production contract awarding in FY19.<br>(3) FY17 and FY18 LMMT ship procurements required additional equipment that was not needed in FY19 and out, therefore reducing the unit cost. |                                                                               |                                                                           |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|--------------------------------------------------------------------------------|---------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                        |              |             |                                                                                |         | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>2618 / Navy Command and Control System (NCCS) |         |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         | Program Elements for Code B Items: N/A |              |             |                                                                                |         | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                                  | FY 2020 | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | -       | -                                      | -            | -           | -                                                                              | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 39.246      | 4.556   | 4.512                                  | 3.769        | 0.000       | 3.769                                                                          | 3.415   | 3.571                               | 3.660   | 3.739   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -           | -       | -                                      | -            | -           | -                                                                              | -       | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 39.246      | 4.556   | 4.512                                  | 3.769        | 0.000       | 3.769                                                                          | 3.415   | 3.571                               | 3.660   | 3.739   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -           | -       | -                                      | -            | -           | -                                                                              | -       | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 39.246      | 4.556   | 4.512                                  | 3.769        | 0.000       | 3.769                                                                          | 3.415   | 3.571                               | 3.660   | 3.739   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -           | 0.029   | 0.150                                  | 0.102        | -           | 0.102                                                                          | 0.053   | 0.056                               | -       | -       | -           | 0.390      |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -                                      | -            | -           | -                                                                              | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -           | -       | -                                      | -            | -           | -                                                                              | -       | -                                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| Funding includes Global Command and Control System-Maritime (GCCS-M), the Navy fielded portions of GCCS-Joint, and Joint Automated Deep Operations Coordination System (JADOCS). GCCS-M is further delineated by Afloat and Ashore.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| GCCS-M is the Maritime implementation of the United States (U.S.) Global Command and Control System (GCCS). It provides Maritime Commanders at all echelons of command with a single, integrated, scalable Command, Control, Communication, Computers and Intelligence (C4I) system that fuses, correlates, filters, maintains and displays location, and attribute information on friendly, hostile and neutral land, sea and air forces. It takes this information and integrates it with available intelligence and environmental information to support commander decision making. It operates in near real-time, constantly updating unit positions and other situational awareness data. GCCS-M also records data in appropriate databases and maintains a history of changes to those records. System operators use the data to construct relevant tactical pictures using maps, charts, topography overlays, oceanographic overlays, meteorological overlays, imagery and all-source intelligence information coordinated into a Common Operational Picture (COP) that can be shared locally and with other sites. GCCS-M is not a weapon system, but receives data from, and interfaces with Navy integrated weapons systems. Navy Commanders review and evaluate the general tactical situation, plan actions and operations, direct forces, synchronize tactical movements, and integrate force maneuver with firepower. GCCS-M operates on General Service (GENSER) Secret networks in a variety of environments and supports joint, coalition and allied forces. GCCS-M is implemented Afloat and at Ashore fixed command centers. Increment 1 includes all GCCS-M software versions 4.0 and earlier. Increment 2 is GCCS-M 4.1. |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| [P5 / FA010 GCCS-M Afloat]: GCCS-M Afloat provides Command and Control capability to Force Level Ships (e.g., CVN Carriers, LCC Command Ships, LHA and LHD Amphibious Ships), Unit Level Ships (e.g., CG Cruisers, DDG Destroyers, MCM Mine Countermeasure Ships, LPD and LSD Amphibious Ships, FF/LCS Littoral Combat Ships, PC Coastal Patrol Ships), Submarines (e.g., SSN/SSBN/SSGN Submarines), the Software Support Activity (SSA), and the In-Service Engineering Activity (ISEA).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| [P5 / FA020 GCCS-M Ashore]: GCCS-M Ashore provides evolutionary systems and ancillary equipment upgrades to support Fleet Commanders, Force Anti-Submarine Warfare Commanders, Submarine Operating Authorities, Aegis Ashore Missile Defense Systems, and Technical Training Equipment Sites worldwide. GCCS-M Ashore provides systems that receive, process, display, maintain and/or assess unit characteristics, employment scheduling, material condition, combat readiness, war fighting capabilities, and positional information of own, allied, and hostile forces. GCCS-M Ashore provides the tools necessary for fleet and Shore based Commanders to execute plans, transmit tasking, and provide tactical information to subordinate forces.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |
| [P5 / FA040 GCCS (Joint) Support Equipment]: Global Command and Control System- Joint (GCCS-J) is a Department of Defense (DoD) Program of Record managed by the Defense Information Systems Agency (DISA) GCCS-J Program Management Office (PMO). The GCCS-J system requirements, software release schedule, and system fielding plan are determined by the DISA GCCS-J PMO in coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |                                                                                |         |                                     |         |         |             |            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                               | <b>Date:</b> February 2018                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                               | <b>P-1 Line Item Number / Title:</b><br>2618 / Navy Command and Control System (NCCS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                            |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><br>with the Joint Staff. GCCS-J supports the Joint Staff and Combatant Commanders by providing Command, Control, Communication, Computers and Intelligence (C4I) data processing capabilities, including status of forces and support requirements for use in national security decision making, force preparation and operational planning and execution. Global Command and Control System- Joint (GCCS-J) provides support for Fleet Communications Center interfacing with deployed units and other fixed Fleet and Joint Command Centers.<br><br>[P5 / FA060 Joint Automated Deep Operations Coordination System (JADOCS)]: Provide funding for the fielding of JADOCS software on new installation hardware. JADOCS is required to provide the capability to coordinate joint targeting and mission assignment for time sensitive targets and other rapid-response missions across Functional Component Commanders, Joint and Combined Force Commanders, Geographic Combatant Commanders, and Special Operations Commanders. |                                               |                                                                                       |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                    |                                            |             |                                               |                |                                          |                                                                                       |                                          | <b>Date:</b> February 2018               |                                          |                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------|-----------------------------------------------|----------------|------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment |                                            |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>2618 / Navy Command and Control System (NCCS) |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                             |                                            |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                                            |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                 |                                            |             |                                               |                |                                          |                                                                                       |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                    |                                            |             |                                               |                | Prior Years                              | FY 2017                                                                               | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                         | Title*                                     | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                              | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                                  | 1 / Navy Command and Control System (NCCS) | P-5a        |                                               |                | - / 39.246                               | - / 4.556                                                                             | - / 4.512                                | - / 3.769                                | - / 0.000                                | - / 3.769                                |
| <b>P-40</b>                                                                                                                                                                          | <b>Total Gross/Weapon System Cost</b>      |             |                                               |                | <b>- / 39.246</b>                        | <b>- / 4.556</b>                                                                      | <b>- / 4.512</b>                         | <b>- / 3.769</b>                         | <b>- / 0.000</b>                         | <b>- / 3.769</b>                         |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.</small>  |                                            |             |                                               |                |                                          |                                                                                       |                                          |                                          |                                          |                                          |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                |                                            |             |                                               |                |                                          |                                                                                       |                                          |                                          |                                          |                                          |

## Justification:

The FY 2019 budget procures and installs Global Command and Control System - Joint (GCCS-J) Ashore workstations, servers, Local Area Network (LAN) hardware and software, communications equipment, and Joint Automated Deep Operations Coordination System (JADOCS), and Global Command and Control System - Maritime (GCCS-M) software, to include Windows XP eradication efforts on GCCS-M afloat platforms.

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                  |            |                   |                  |            |                                                                                |                  |            |                   | Date: February 2018 |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |                  |            |                   |                  |            | P-1 Line Item Number / Title:<br>2618 / Navy Command and Control System (NCCS) |                  |            |                   |                     |            | Item Number / Title [DODIC]:<br>1 / Navy Command and Control System (NCCS) |                  |               |                   |                  |            |                   |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                  |            |                   |                  |            |                                                                                |                  |            |                   | MDAP/MAIS Code:     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Resource Summary                                                                                                                       |                  |            |                   | Prior Years      |            | FY 2017                                                                        |                  | FY 2018    |                   | FY 2019 Base        |            | FY 2019 OCO                                                                |                  | FY 2019 Total |                   |                  |            |                   |  |
| Procurement Quantity (Units in Each)                                                                                                   |                  |            |                   | -                |            | -                                                                              |                  | -          |                   | -                   |            | -                                                                          |                  | -             |                   |                  |            |                   |  |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              |                  |            |                   | 39.246           |            | 4.556                                                                          |                  | 4.512      |                   | 3.769               |            | 0.000                                                                      |                  | 3.769         |                   |                  |            |                   |  |
| Less PY Advance Procurement (\$ in Millions)                                                                                           |                  |            |                   | -                |            | -                                                                              |                  | -          |                   | -                   |            | -                                                                          |                  | -             |                   |                  |            |                   |  |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 |                  |            |                   | 39.246           |            | 4.556                                                                          |                  | 4.512      |                   | 3.769               |            | 0.000                                                                      |                  | 3.769         |                   |                  |            |                   |  |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           |                  |            |                   | -                |            | -                                                                              |                  | -          |                   | -                   |            | -                                                                          |                  | -             |                   |                  |            |                   |  |
| Total Obligation Authority (\$ in Millions)                                                                                            |                  |            |                   | 39.246           |            | 4.556                                                                          |                  | 4.512      |                   | 3.769               |            | 0.000                                                                      |                  | 3.769         |                   |                  |            |                   |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Initial Spares (\$ in Millions)                                                                                                        |                  |            |                   | -                |            | 0.029                                                                          |                  | 0.150      |                   | 0.102               |            | -                                                                          |                  | 0.102         |                   |                  |            |                   |  |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        |                  |            |                   | -                |            | -                                                                              |                  | -          |                   | -                   |            | -                                                                          |                  | -             |                   |                  |            |                   |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Cost Elements                                                                                                                          | Prior Years      |            |                   | FY 2017          |            |                                                                                | FY 2018          |            |                   | FY 2019 Base        |            |                                                                            | FY 2019 OCO      |               |                   | FY 2019 Total    |            |                   |  |
|                                                                                                                                        | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                                              | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)    | Qty (Each) | Total Cost (\$ M)                                                          | Unit Cost (\$ K) | Qty (Each)    | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |  |
| Flyaway - FA010 GCCS-M Afloat Cost                                                                                                     |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Recurring Cost                                                                                                                         |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| 1.1.1) GCCS-M Increment 1 Afloat <sup>(†)</sup>                                                                                        | 48.913           | 103        | 5.038             | 1.000            | 1          | 0.001                                                                          | -                | -          | -                 | -                   | -          | -                                                                          | -                | -             | -                 | -                | -          | -                 |  |
| 1.1.2) GCCS-M Increment 2 Afloat <sup>(†)</sup>                                                                                        | 39.763           | 76         | 3.022             | 1.607            | 56         | 0.090                                                                          | 2.938            | 48         | 0.141             | 4.026               | 39         | 0.157                                                                      | -                | -             | -                 | 4.026            | 39         | 0.157             |  |
| Subtotal: Recurring Cost                                                                                                               | -                | -          | 8.060             | -                | -          | 0.091                                                                          | -                | -          | 0.141             | -                   | -          | 0.157                                                                      | -                | -             | -                 | -                | -          | 0.157             |  |
| Subtotal: Flyaway - FA010 GCCS-M Afloat Cost                                                                                           | -                | -          | 8.060             | -                | -          | 0.091                                                                          | -                | -          | 0.141             | -                   | -          | 0.157                                                                      | -                | -             | -                 | -                | -          | 0.157             |  |
| Flyaway - FA020 GCCS-M Ashore Cost                                                                                                     |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Recurring Cost                                                                                                                         |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| 2.1.1) GCCS-M Increment 2 Ashore <sup>(†)</sup>                                                                                        | 1,070.000        | 2          | 2.140             | -                | -          | -                                                                              | 1.000            | 1          | 0.001             | -                   | -          | -                                                                          | -                | -             | -                 | -                | -          | -                 |  |
| Subtotal: Recurring Cost                                                                                                               | -                | -          | 2.140             | -                | -          | -                                                                              | -                | -          | 0.001             | -                   | -          | -                                                                          | -                | -             | -                 | -                | -          | -                 |  |
| Subtotal: Flyaway - FA020 GCCS-M Ashore Cost                                                                                           | -                | -          | 2.140             | -                | -          | -                                                                              | -                | -          | 0.001             | -                   | -          | -                                                                          | -                | -             | -                 | -                | -          | -                 |  |
| Flyaway - FA040 GCCS (Joint) Support Equipment Cost                                                                                    |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| Recurring Cost                                                                                                                         |                  |            |                   |                  |            |                                                                                |                  |            |                   |                     |            |                                                                            |                  |               |                   |                  |            |                   |  |
| 3.1.1) GCCS (Joint) Support Equipment <sup>(†)</sup>                                                                                   | 165.943          | 35         | 5.808             | 100.333          | 6          | 0.602                                                                          | 106.833          | 6          | 0.641             | 87.167              | 6          | 0.523                                                                      | -                | -             | -                 | 87.167           | 6          | 0.523             |  |
| Subtotal: Recurring Cost                                                                                                               | -                | -          | 5.808             | -                | -          | 0.602                                                                          | -                | -          | 0.641             | -                   | -          | 0.523                                                                      | -                | -             | -                 | -                | -          | 0.523             |  |

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|------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                                                |                     |               |                      | Date: February 2018 |               |                                                                            |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                       |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2618 / Navy Command and Control System (NCCS) |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Navy Command and Control System (NCCS) |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                                                |                     |               |                      | MDAP/MAIS Code:     |               |                                                                            |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                                                | FY 2018             |               |                      | FY 2019 Base        |               |                                                                            | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                           | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                       | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Subtotal: Flyaway - FA040 GCCS (Joint) Support Equipment Cost                                  | -                   | -             | 5.808                | -                   | -             | 0.602                                                                          | -                   | -             | 0.641                | -                   | -             | 0.523                                                                      | -                   | -             | -                    | -                   | -             | 0.523                |
| Flyaway - FA060 Joint Automated Deep Operations Coordination System (JADOCS) Cost              |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| 4.1.1) JADOCS <sup>(†)</sup>                                                                   | 8.792               | 24            | 0.211                | 13.000              | 3             | 0.039                                                                          | 13.260              | 5             | 0.066                | 13.200              | 5             | 0.066                                                                      | -                   | -             | -                    | 13.200              | 5             | 0.066                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 0.211                | -                   | -             | 0.039                                                                          | -                   | -             | 0.066                | -                   | -             | 0.066                                                                      | -                   | -             | -                    | -                   | -             | 0.066                |
| Subtotal: Flyaway - FA060 Joint Automated Deep Operations Coordination System (JADOCS) Cost    | -                   | -             | 0.211                | -                   | -             | 0.039                                                                          | -                   | -             | 0.066                | -                   | -             | 0.066                                                                      | -                   | -             | -                    | -                   | -             | 0.066                |
| Flyaway - ASHORE INSTALLATIONS - FA776 Non FMP Cost                                            |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| 5.1.1) GCCS-M Increment 2 Ashore Installation and Pre-Installation Design                      | -                   | -             | 0.881                | -                   | -             | -                                                                              | -                   | -             | 0.065                | -                   | -             | -                                                                          | -                   | -             | -                    | -                   | -             | -                    |
| 5.1.2) GCCS (Joint) Support Equipment                                                          | -                   | -             | 3.167                | -                   | -             | 0.419                                                                          | -                   | -             | 0.430                | -                   | -             | 0.450                                                                      | -                   | -             | -                    | -                   | -             | 0.450                |
| 5.1.3) GCCS-J Pre-Installation Design                                                          | -                   | -             | 0.869                | -                   | -             | 0.175                                                                          | -                   | -             | 0.194                | -                   | -             | 0.180                                                                      | -                   | -             | -                    | -                   | -             | 0.180                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 4.917                | -                   | -             | 0.594                                                                          | -                   | -             | 0.689                | -                   | -             | 0.630                                                                      | -                   | -             | -                    | -                   | -             | 0.630                |
| Subtotal: Flyaway - ASHORE INSTALLATIONS - FA776 Non FMP Cost                                  | -                   | -             | 4.917                | -                   | -             | 0.594                                                                          | -                   | -             | 0.689                | -                   | -             | 0.630                                                                      | -                   | -             | -                    | -                   | -             | 0.630                |
| Flyaway - AFLOAT INSTALLATIONS - FA777 FMP Cost                                                |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| 6.1.1) GCCS-M Increment 1 Afloat                                                               | -                   | -             | 8.348                | -                   | -             | 0.055                                                                          | -                   | -             | -                    | -                   | -             | -                                                                          | -                   | -             | -                    | -                   | -             | -                    |
| 6.1.2) GCCS-M Increment 2 Afloat                                                               | -                   | -             | 8.385                | -                   | -             | 3.130                                                                          | -                   | -             | 2.922                | -                   | -             | 2.345                                                                      | -                   | -             | -                    | -                   | -             | 2.345                |
| 6.1.3) JADOCS                                                                                  | -                   | -             | 0.310                | -                   | -             | 0.030                                                                          | -                   | -             | 0.029                | -                   | -             | 0.030                                                                      | -                   | -             | -                    | -                   | -             | 0.030                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 17.043               | -                   | -             | 3.215                                                                          | -                   | -             | 2.951                | -                   | -             | 2.375                                                                      | -                   | -             | -                    | -                   | -             | 2.375                |
| Subtotal: Flyaway - AFLOAT INSTALLATIONS - FA777 FMP Cost                                      | -                   | -             | 17.043               | -                   | -             | 3.215                                                                          | -                   | -             | 2.951                | -                   | -             | 2.375                                                                      | -                   | -             | -                    | -                   | -             | 2.375                |
| Flyaway - Consolidated Prior Year Requirements Cost                                            |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                                |                     |               |                      |                     |               |                                                                            |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     | Date: February 2018                                                        |                      |                     |               |                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|--------------------------------------------------------------------------------|---------------|----------------------|---------------------|-----------------|----------------------|---------------------|----------------------------------------------------------------------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>2618 / Navy Command and Control System (NCCS) |               |                      |                     |                 |                      |                     | Item Number / Title [DODIC]:<br>1 / Navy Command and Control System (NCCS) |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     | MDAP/MAIS Code: |                      |                     |                                                                            |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |
| Cost Elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                                        |               |                      | FY 2019 Base        |                 |                      | FY 2019 OCO         |                                                                            |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                            | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)   | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)                                                              | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 7.1.1) Consolidated Prior Year Requirements <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                   | -             | 0.896                | -                   | -             | -                    | -                                                                              | -             | -                    | -                   | -               | -                    | -                   | -                                                                          | -                    | -                   | -             | -                    |
| Subtotal: Recurring Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                   | -             | 0.896                | -                   | -             | -                    | -                                                                              | -             | -                    | -                   | -               | -                    | -                   | -                                                                          | -                    | -                   | -             | -                    |
| Subtotal: Flyaway - Consolidated Prior Year Requirements Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                   | -             | 0.896                | -                   | -             | -                    | -                                                                              | -             | -                    | -                   | -               | -                    | -                   | -                                                                          | -                    | -                   | -             | -                    |
| Support - FA555 Production Support Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |
| 8.1) GCCS (Joint) Production Engineering Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                   | -             | 0.171                | -                   | -             | 0.015                | -                                                                              | -             | 0.023                | -                   | -               | 0.018                | -                   | -                                                                          | -                    | -                   | -             | 0.018                |
| Subtotal: Support - FA555 Production Support Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                   | -             | 0.171                | -                   | -             | 0.015                | -                                                                              | -             | 0.023                | -                   | -               | 0.018                | -                   | -                                                                          | -                    | -                   | -             | 0.018                |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                   | -             | 39.246               | -                   | -             | 4.556                | -                                                                              | -             | 4.512                | -                   | -               | 3.769                | -                   | -                                                                          | 0.000                | -                   | -             | 3.769                |
| Remarks:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |
| <div>- Global Command and Control System - Maritime (GCCS-M) Afloat install quantities also include refresh units.</div> <div>- For GCCS-M software-only installations, Other Procurement, Navy (OPN) is the appropriate fund source when the GCCS-M installation is an incidental cost to the Common Computing Environment (CCE)/ Consolidated Afloat Networks and Enterprise Services (CANES) hardware installation.</div> <div>- GCCS-M unit costs are based on the average cost of all the platforms or sites installed within a given fiscal year. Unit cost variances are due to the diverse types of upgrade requirements per platform or site.</div> <div>- GCCS-M Increment 1 can deliver a software / hardware solution or a software-only solution.</div> <div>- GCCS-M Increment 2 Afloat is the final version of GCCS-M.</div> <div>- Global Command and Control System - Joint (GCCS-J) quantities represent the number of complete unit upgrades to existing systems. The cost to upgrade each unit varies based on the number of servers, computers, and monitors and the equipment configurations. The different unit sizes and configurations result in varying unit costs.</div> |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |
| (†) indicates the presence of a P-5a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |
| Footnotes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |
| <sup>(1)</sup> Consolidated prior year requirements include GCCS-M Increment 2 Ashore Training Curriculum (FA666), GCCS-M Increment 2 Ashore Production Support (FA555), JADOCS Ashore Installations (FA776).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |               |                      |                     |               |                      |                                                                                |               |                      |                     |                 |                      |                     |                                                                            |                      |                     |               |                      |

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |                                                                                       | <b>Date:</b> February 2018                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2618 / Navy Command and Control System (NCCS) | <b>Item Number / Title [DODIC]:</b><br>1 / Navy Command and Control System (NCCS) |

| Cost Elements                         | O<br>C<br>O | FY   | Contractor and Location                      | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$ K) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
|---------------------------------------|-------------|------|----------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|---------------------|------------------------|-------------------------------|-------------------|
| 1.1.1) GCCS-M Increment 1 Afloat      |             | 2017 | SSC Atlantic/Pacific / SPAWAR                | WR                                   | SPAWAR          | Nov 2016      | Jan 2017                     | 1             | 1.000               | Y                      |                               |                   |
| 1.1.2) GCCS-M Increment 2 Afloat      |             | 2017 | SSC Atlantic/Pacific <sup>(2)</sup> / SPAWAR | WR                                   | SPAWAR          | Nov 2016      | Jan 2017                     | 56            | 1.607               | Y                      |                               |                   |
| 1.1.2) GCCS-M Increment 2 Afloat      |             | 2018 | SSC Atlantic/Pacific <sup>(2)</sup> / SPAWAR | WR                                   | SPAWAR          | Nov 2017      | Jan 2018                     | 48            | 2.938               | Y                      |                               |                   |
| 1.1.2) GCCS-M Increment 2 Afloat      |             | 2019 | SSC Atlantic/Pacific <sup>(2)</sup> / SPAWAR | WR                                   | SPAWAR          | Nov 2018      | Jan 2019                     | 39            | 4.026               | Y                      |                               |                   |
| 2.1.1) GCCS-M Increment 2 Ashore      |             | 2018 | SSC Atlantic/Pacific / SPAWAR                | WR                                   | SPAWAR          | Nov 2017      | Jan 2018                     | 1             | 1.000               | Y                      |                               |                   |
| 3.1.1) GCCS (Joint) Support Equipment |             | 2017 | SSC Atlantic/SPAWAR / SPAWAR                 | WR                                   | SPAWAR          | Jan 2017      | Apr 2017                     | 6             | 100.333             | Y                      |                               |                   |
| 3.1.1) GCCS (Joint) Support Equipment |             | 2018 | SSC Atlantic/SPAWAR / SPAWAR                 | WR                                   | SPAWAR          | Jan 2018      | Apr 2018                     | 6             | 106.833             | Y                      |                               |                   |
| 3.1.1) GCCS (Joint) Support Equipment |             | 2019 | SSC Atlantic/SPAWAR / SPAWAR                 | WR                                   | SPAWAR          | Jan 2019      | Apr 2019                     | 6             | 87.167              | Y                      |                               |                   |
| 4.1.1) JADOCS                         |             | 2017 | SSC Pacific / San Diego, CA                  | WR                                   | SPAWAR          | Nov 2016      | Jan 2017                     | 3             | 13.000              | Y                      |                               |                   |
| 4.1.1) JADOCS                         |             | 2018 | SSC Pacific / San Diego, CA                  | WR                                   | SPAWAR          | Nov 2017      | Jan 2018                     | 5             | 13.260              | Y                      |                               |                   |
| 4.1.1) JADOCS                         |             | 2019 | SSC Pacific / San Diego, CA                  | WR                                   | SPAWAR          | Nov 2018      | Jan 2019                     | 5             | 13.200              | Y                      |                               |                   |

**Footnotes:**

<sup>(2)</sup> For GCCS-M Increment 1 Afloat, Increment 2 Afloat, and Increment 2 Ashore: Space and Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), Pacific and Atlantic are procuring, integrating and installation agents. There are multiple hardware and software contracts awarded under each of these cost elements.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------------------------------------------|--------------|-------------|-------------------------------------------------------------------------|---------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         |                                             |              |             |                                                                         |         | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |                                             |              |             | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |         |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         | Program Elements for Code B Items: 0603502N |              |             |                                                                         |         | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Prior Years | FY 2017 | FY 2018                                     | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                           | FY 2020 | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -           | -       | -                                           | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 535.327     | 26.764  | 31.531                                      | 35.709       | 0.000       | 35.709                                                                  | 55.949  | 51.338                              | 34.007  | 16.753  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -                                           | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 535.327     | 26.764  | 31.531                                      | 35.709       | 0.000       | 35.709                                                                  | 55.949  | 51.338                              | 34.007  | 16.753  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -                                           | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 535.327     | 26.764  | 31.531                                      | 35.709       | 0.000       | 35.709                                                                  | 55.949  | 51.338                              | 34.007  | 16.753  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | 0.830   | 1.202                                       | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | 2.032      |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -           | -       | -                                           | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -                                           | -            | -           | -                                                                       | -       | -                                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| Provide systems, subsystems, and engineering change kits for minehunting, navigation, and tactical display operations by the surface Mine Countermeasure (MCM) force. Engineering change kits improve reliability and maintainability and correct deficiencies to allow equipment to perform in accordance with operational requirements.                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| HME Ship Systems support software integration and hardware upgrades to legacy MCM ships and software tech refresh for the Integrated Ship Control System (ISCS) on MCM Class Ships forward deployed to ensure MCM mine hunting and minesweeping capability whereas legacy sustainment is not feasible and would result in delays and obsolescence. This program also supports ship change upgrades computer workstations, replaces network switches, and replaces the operating system.                                                                                                                                                                                                                                                                   |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| The MCM Combat System Upgrades program consists of a series of incremental upgrades to the current combat system via Engineering Change Kits. The upgrades improve reliability and maintainability and correct deficiencies to allow the equipment to perform in accordance with operational requirements. This includes supportability and obsolescence Upgrade Engineering Changes of the MCM-1 Class Ship combat systems to resolve issues with the AN/SLQ-48 Mine Neutralization System, installation of Mine Environmental Decision Aids Library (MEDAL) Expeditionary Systems, and improved SSQ-94 System Trainer to MCM Ships' and integrating the SQQ-32 High Frequency Wide Band (HFWB) and SSN-2 PINS upgrade and resolves obsolescence issues. |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| The Knifefish Surface Mine Countermeasure Unmanned Undersea Vehicle (SMCM UUV) program procures Unmanned Undersea Vehicles to support clandestine mine detection capability against volume and bottom mines including buried mine detection. The Knifefish system is composed of two UUVs, batteries, launch and handling system, and other support equipment.                                                                                                                                                                                                                                                                                                                                                                                            |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |
| Magnetic Silencing Facility Upgrades supports hardware, auxiliary systems and support in association with the upgrade of the current aging CONUS and Outside Continental United States (OCONUS) Magnetic Silencing Facilities so the calibration of the new Open-Loop Magnetic Systems or Advanced Degaussing System ships and submarines can be accomplished for worldwide operation. The upgrade will also ensure that the ships/submarines will be able to meet OPNAV 8950.2G signature requirements and will be less susceptible to Electro-Magnetic threat systems.                                                                                                                                                                                  |             |         |                                             |              |             |                                                                         |         |                                     |         |         |             |            |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                         |                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2622 / Minesweeping System Replacement |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|

|                                                          |                                                    |                                            |
|----------------------------------------------------------|----------------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B | <b>Program Elements for Code B Items:</b> 0603502N | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|----------------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Exhibits Schedule |                                       |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|---------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5               | 1 / HME SHIP SYSTEMS                  |             |       |                | - / 62.927                               | - / 6.162                                | - / 2.375                                | - / 2.132                                | - / 0.000                                | - / 2.132                                |
| P-5               | 2 / MINE COUNTERMEASURES              |             |       |                | - / 200.936                              | - / 7.159                                | - / 8.328                                | - / 2.759                                | - / 0.000                                | - / 2.759                                |
| P-5               | 3 / UNMANNED SYSTEMS [UNMAN]          | P-5a, P-21  |       |                | - / 0.000                                | - / 0.000                                | - / 3.010                                | - / 19.296                               | - / 0.000                                | - / 19.296                               |
| P-5               | 4 / OTHER SYSTEMS [OTHER]             |             |       |                | - / 271.464                              | - / 13.443                               | - / 17.818                               | - / 11.522                               | - / 0.000                                | - / 11.522                               |
| P-40              | <b>Total Gross/Weapon System Cost</b> |             |       |                | <b>- / 535.327</b>                       | <b>- / 26.764</b>                        | <b>- / 31.531</b>                        | <b>- / 35.709</b>                        | <b>- / 0.000</b>                         | <b>- / 35.709</b>                        |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

## Justification:

The FY 2019 funding request was reduced by \$3.9 million to account for the availability of prior year execution balances.

FY 2019 funds the baseline program in order to outfit the current MCM Fleet with Navy's latest technology to combat Mine Warfare Countermeasures around the world. This includes the continued upgrades of SLQ-48 Mine Neutralization systems and the UISS trainers. Additionally, to meet the increased operational demand, funding will go towards the installation of the MEDAL EA Mine Warfare Planning upgrades. The increase in FY 2019 from FY 2018 is attributed to the initial procurement of Knifefish and ancillary equipment.

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|----------------------------------------------------------------------------------------------------------------------------------------|--|------------------|------------|-------------------|------------------|-------------------------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  | Date: February 2018                                  |                   |                  |            |                   |                  |            |                   |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |  |                  |            |                   |                  | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |                   |                  |            |                   |                  | Item Number / Title [DODIC]:<br>1 / HME SHIP SYSTEMS |                   |                  |            |                   |                  |            |                   |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                  |            |                   |                  |                                                                         |                   |                  |            | MDAP/MAIS Code:   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| Resource Summary                                                                                                                       |  |                  |            | Prior Years       |                  |                                                                         | FY 2017           |                  |            | FY 2018           |                  |                                                      | FY 2019 Base      |                  |            | FY 2019 OCO       |                  |            | FY 2019 Total     |  |  |
| Procurement Quantity (Units in Each)                                                                                                   |  |                  |            | -                 |                  |                                                                         | -                 |                  |            | -                 |                  |                                                      | -                 |                  |            | -                 |                  |            | -                 |  |  |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              |  |                  |            | 62.927            |                  |                                                                         | 6.162             |                  |            | 2.375             |                  |                                                      | 2.132             |                  |            | 0.000             |                  |            | 2.132             |  |  |
| Less PY Advance Procurement (\$ in Millions)                                                                                           |  |                  |            | -                 |                  |                                                                         | -                 |                  |            | -                 |                  |                                                      | -                 |                  |            | -                 |                  |            | -                 |  |  |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 |  |                  |            | 62.927            |                  |                                                                         | 6.162             |                  |            | 2.375             |                  |                                                      | 2.132             |                  |            | 0.000             |                  |            | 2.132             |  |  |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           |  |                  |            | -                 |                  |                                                                         | -                 |                  |            | -                 |                  |                                                      | -                 |                  |            | -                 |                  |            | -                 |  |  |
| Total Obligation Authority (\$ in Millions)                                                                                            |  |                  |            | 62.927            |                  |                                                                         | 6.162             |                  |            | 2.375             |                  |                                                      | 2.132             |                  |            | 0.000             |                  |            | 2.132             |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| Initial Spares (\$ in Millions)                                                                                                        |  |                  |            | -                 |                  |                                                                         | -                 |                  |            | -                 |                  |                                                      | -                 |                  |            | -                 |                  |            | -                 |  |  |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        |  |                  |            | -                 |                  |                                                                         | -                 |                  |            | -                 |                  |                                                      | -                 |                  |            | -                 |                  |            | -                 |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| Cost Elements                                                                                                                          |  | Prior Years      |            |                   | FY 2017          |                                                                         |                   | FY 2018          |            |                   | FY 2019 Base     |                                                      |                   | FY 2019 OCO      |            |                   | FY 2019 Total    |            |                   |  |  |
|                                                                                                                                        |  | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each)                                                              | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each)                                           | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |  |  |
| Hardware - LV081 - BOW THRUSTER IMPROVEMENT Cost                                                                                       |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| Recurring Cost                                                                                                                         |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| 1.1.1) BOW THRUSTER IMPROVEMENT                                                                                                        |  | -                | -          | 3.958             | -                | -                                                                       | 0.000             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                | -          | 3.958             | -                | -                                                                       | 0.000             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Subtotal: Hardware - LV081 - BOW THRUSTER IMPROVEMENT Cost                                                                             |  | -                | -          | 3.958             | -                | -                                                                       | 0.000             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Hardware - LV082 - AFT DECK EQUIPMENT UPGRADE Cost                                                                                     |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| Recurring Cost                                                                                                                         |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| 2.1.1) AFT DECK EQUIPMENT UPGRADE                                                                                                      |  | -                | -          | 39.303            | -                | -                                                                       | 3.582             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                | -          | 39.303            | -                | -                                                                       | 3.582             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Subtotal: Hardware - LV082 - AFT DECK EQUIPMENT UPGRADE Cost                                                                           |  | -                | -          | 39.303            | -                | -                                                                       | 3.582             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Hardware - LV084 - 400HZ Cost                                                                                                          |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| Non Recurring Cost                                                                                                                     |  |                  |            |                   |                  |                                                                         |                   |                  |            |                   |                  |                                                      |                   |                  |            |                   |                  |            |                   |  |  |
| 3.1.1) 400HZ                                                                                                                           |  | -                | -          | 3.994             | -                | -                                                                       | 0.000             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Subtotal: Non Recurring Cost                                                                                                           |  | -                | -          | 3.994             | -                | -                                                                       | 0.000             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |
| Subtotal: Hardware - LV084 - 400HZ Cost                                                                                                |  | -                | -          | 3.994             | -                | -                                                                       | 0.000             | -                | -          | 0.000             | -                | -                                                    | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |  |  |

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|------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|-------------------------------------------------------------------------|---------------|----------------------|---------------------|-----------------|----------------------|------------------------------------------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |                 |                      | Date: February 2018                                  |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                       |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |               |                      |                     |                 |                      | Item Number / Title [DODIC]:<br>1 / HME SHIP SYSTEMS |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     | MDAP/MAIS Code: |                      |                                                      |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |                 |                      |                                                      |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                                 |               |                      | FY 2019 Base        |                 |                      | FY 2019 OCO                                          |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                     | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)   | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                  | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Software - LV073 - MCM/MHC INTEGRATED SHIP CONTROL SYSTEM Cost                                 |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |                 |                      |                                                      |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |                 |                      |                                                      |               |                      |                     |               |                      |
| 4.1.1) SOFTWARE INTEGRATION                                                                    | -                   | -             | 15.672               | -                   | -             | 2.580                | -                                                                       | -             | 2.375                | -                   | -               | 2.132                | -                                                    | -             | 0.000                | -                   | -             | 2.132                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 15.672               | -                   | -             | 2.580                | -                                                                       | -             | 2.375                | -                   | -               | 2.132                | -                                                    | -             | 0.000                | -                   | -             | 2.132                |
| Subtotal: Software - LV073 - MCM/MHC INTEGRATED SHIP CONTROL SYSTEM Cost                       | -                   | -             | 15.672               | -                   | -             | 2.580                | -                                                                       | -             | 2.375                | -                   | -               | 2.132                | -                                                    | -             | 0.000                | -                   | -             | 2.132                |
| Gross/Weapon System Cost                                                                       | -                   | -             | 62.927               | -                   | -             | 6.162                | -                                                                       | -             | 2.375                | -                   | -               | 2.132                | -                                                    | -             | 0.000                | -                   | -             | 2.132                |
|                                                                                                |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |                 |                      |                                                      |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     | Date: February 2018                                      |                      |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |  |                     |               |                      |                     | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |                      |                     |                 |                      |                     | Item Number / Title [DODIC]:<br>2 / MINE COUNTERMEASURES |                      |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                     |               |                      |                     |                                                                         |                      |                     | MDAP/MAIS Code: |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |  |                     |               | Prior Years          |                     | FY 2017                                                                 |                      | FY 2018             |                 | FY 2019 Base         |                     | FY 2019 OCO                                              |                      | FY 2019 Total       |               |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |  |                     |               | -                    |                     | -                                                                       |                      | -                   |                 | -                    |                     | -                                                        |                      | -                   |               |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |  |                     |               | 200.936              |                     | 7.159                                                                   |                      | 8.328               |                 | 2.759                |                     | 0.000                                                    |                      | 2.759               |               |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     | -                                                                       |                      | -                   |                 | -                    |                     | -                                                        |                      | -                   |               |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |  |                     |               | 200.936              |                     | 7.159                                                                   |                      | 8.328               |                 | 2.759                |                     | 0.000                                                    |                      | 2.759               |               |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     | -                                                                       |                      | -                   |                 | -                    |                     | -                                                        |                      | -                   |               |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |  |                     |               | 200.936              |                     | 7.159                                                                   |                      | 8.328               |                 | 2.759                |                     | 0.000                                                    |                      | 2.759               |               |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |  |                     |               | -                    |                     | -                                                                       |                      | -                   |                 | -                    |                     | -                                                        |                      | -                   |               |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |  |                     |               | -                    |                     | -                                                                       |                      | -                   |                 | -                    |                     | -                                                        |                      | -                   |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          |  | Prior Years         |               |                      | FY 2017             |                                                                         |                      | FY 2018             |                 |                      | FY 2019 Base        |                                                          |                      | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        |  | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)                                                           | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)   | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)                                            | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - LV075 - MCM COMBAT SYSTEMS Cost                                                                                             |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| 1.1.1) SSQ-94 Trainer                                                                                                                  |  | -                   | -             | 0.993                | -                   | -                                                                       | 1.012                | -                   | -               | 0.993                | -                   | -                                                        | 0.398                | -                   | -             | 0.000                | -                   | -             | 0.398                |
| 1.1.2) MCM Combat Systems (MEDAL)                                                                                                      |  | -                   | -             | 159.529              | -                   | -                                                                       | 2.358                | -                   | -               | 3.585                | -                   | -                                                        | 0.961                | -                   | -             | 0.000                | -                   | -             | 0.961                |
| 1.1.3) Obsolescence Upgrades (SLQ-48)                                                                                                  |  | -                   | -             | 2.491                | -                   | -                                                                       | 2.758                | -                   | -               | 3.750                | -                   | -                                                        | 1.400                | -                   | -             | 0.000                | -                   | -             | 1.400                |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 163.013              | -                   | -                                                                       | 6.128                | -                   | -               | 8.328                | -                   | -                                                        | 2.759                | -                   | -             | 0.000                | -                   | -             | 2.759                |
| Subtotal: Hardware - LV075 - MCM COMBAT SYSTEMS Cost                                                                                   |  | -                   | -             | 163.013              | -                   | -                                                                       | 6.128                | -                   | -               | 8.328                | -                   | -                                                        | 2.759                | -                   | -             | 0.000                | -                   | -             | 2.759                |
| Hardware - LV078 - AN/SQQ-30(V)4 HFWB Cost                                                                                             |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| 2.1.1) AN/SQQ-32(V)4 HFWB Integration                                                                                                  |  | 3,213.000           | 10            | 32.130               | -                   | -                                                                       | 0.000                | -                   | -               | 0.000                | -                   | -                                                        | 0.000                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 2.1.2) H/W and S/W ECP                                                                                                                 |  | -                   | -             | 2.142                | -                   | -                                                                       | 1.031                | -                   | -               | 0.000                | -                   | -                                                        | 0.000                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 34.272               | -                   | -                                                                       | 1.031                | -                   | -               | 0.000                | -                   | -                                                        | 0.000                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - LV078 - AN/SQQ-30(V)4 HFWB Cost                                                                                   |  | -                   | -             | 34.272               | -                   | -                                                                       | 1.031                | -                   | -               | 0.000                | -                   | -                                                        | 0.000                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Hardware - PNNCM - Mine Countermeasures Map System Cost                                                                                |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |                                                                         |                      |                     |                 |                      |                     |                                                          |                      |                     |               |                      |                     |               |                      |

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LI 2622 - Minesweeping System Replacement  
Navy

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|                                                                                                                                        |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|-------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               | Date: February 2018                                          |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>3 / UNMANNED SYSTEMS [UNMAN] |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                                                                         |                     |               | MDAP/MAIS Code:      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017                                                                 |                     | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO                                                  |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                            |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 0.000               |               | 0.000                                                                   |                     | 3.010         |                      | 19.296              |               | 0.000                                                        |                     | 19.296        |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                            |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 0.000               |               | 0.000                                                                   |                     | 3.010         |                      | 19.296              |               | 0.000                                                        |                     | 19.296        |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                            |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 0.000               |               | 0.000                                                                   |                     | 3.010         |                      | 19.296              |               | 0.000                                                        |                     | 19.296        |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                            |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                            |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                                                                         | FY 2018             |               |                      | FY 2019 Base        |               |                                                              | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                    | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                         | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - LV079 - SMCM UUV W/LFBB (Knifefish) Cost                                                                                    |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| 1.1.1) SMCM UUV (Knifefish) <sup>(†)</sup>                                                                                             | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | 13,135.000          | 1             | 13.135                                                       | -                   | -             | 0.000                | 13,135.000          | 1             | 13.135               |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 13.135                                                       | -                   | -             | 0.000                | -                   | -             | 13.135               |
| Non Recurring Cost                                                                                                                     |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| 1.2.1) Ancillary Equipment                                                                                                             | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 2.795                                                        | -                   | -             | 0.000                | -                   | -             | 2.795                |
| 1.2.2) Production Engineering - Knifefish                                                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 1.473                                                        | -                   | -             | 0.000                | -                   | -             | 1.473                |
| Subtotal: Non Recurring Cost                                                                                                           | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 4.268                                                        | -                   | -             | 0.000                | -                   | -             | 4.268                |
| Subtotal: Hardware - LV079 - SMCM UUV W/LFBB (Knifefish) Cost                                                                          | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 17.403                                                       | -                   | -             | 0.000                | -                   | -             | 17.403               |
| Hardware - LV080 - UNMANNED INFLUENCE SWEEP SYSTEM (UISS) Trainers Cost                                                                |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                              |                     |               |                      |                     |               |                      |
| 2.1.1) UISS Training Equipment <sup>(†)</sup>                                                                                          | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | 1,505.000           | 2             | 3.010                | 946.500             | 2             | 1.893                                                        | -                   | -             | 0.000                | 946.500             | 2             | 1.893                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 3.010                | -                   | -             | 1.893                                                        | -                   | -             | 0.000                | -                   | -             | 1.893                |
| Subtotal: Hardware - LV080 - UNMANNED INFLUENCE SWEEP SYSTEM (UISS) Trainers Cost                                                      | -                   | -             | 0.000                | -                   | -             | 0.000                                                                   | -                   | -             | 3.010                | -                   | -             | 1.893                                                        | -                   | -             | 0.000                | -                   | -             | 1.893                |

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| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |               |                      |                     |               |                                                                                |                     |               |                        |                     |               | <b>Date:</b> February 2018                                          |                     |               |                      |                     |               |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------------------------|---------------------|---------------|------------------------|---------------------|---------------|---------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |               |                      |                     |               | <b>P-1 Line Item Number / Title:</b><br>2622 / Minesweeping System Replacement |                     |               |                        |                     |               | <b>Item Number / Title [DODIC]:</b><br>3 / UNMANNED SYSTEMS [UNMAN] |                     |               |                      |                     |               |                      |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |               |                      |                     |               |                                                                                |                     |               | <b>MDAP/MAIS Code:</b> |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |               |                      |                     |               |                                                                                |                     |               |                        |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Prior Years         |               |                      | FY 2017             |               |                                                                                | FY 2018             |               |                        | FY 2019 Base        |               |                                                                     | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                           | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                   | -             | 0.000                | -                   | -             | 0.000                                                                          | -                   | -             | 3.010                  | -                   | -             | 19.296                                                              | -                   | -             | 0.000                | -                   | -             | 19.296               |
| <b>Remarks:</b><br>[Hardware] Unmanned Influence Sweep System (UISS) (LV080): This line item procures the training systems to support the UISS operational units procured for the Littoral Combat Ship (LCS) Mission Modules and Vessels of Opportunity (VOO). UISS consists of an Unmanned Surface Vehicle, power supply, control unit, winch, acoustic generator, magnetic tow cable, and a deploy and retrieve subsystem. UISS will provide long endurance and wide area magnetic and acoustic mine sweep capability onboard the LCS class of ships ships, from ashore, and from VOOs.<br><br>(t) indicates the presence of a P-5a |                     |               |                      |                     |               |                                                                                |                     |               |                        |                     |               |                                                                     |                     |               |                      |                     |               |                      |



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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |             |      |                                                                         |                                      |                 |               |                              | Date: February 2018                                          |                            |                        |                               |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |             |      | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |                                      |                 |               |                              | Item Number / Title [DODIC]:<br>3 / UNMANNED SYSTEMS [UNMAN] |                            |                        |                               |                   |
| Cost Elements                                                            | O<br>C<br>O | FY   | Contractor and Location                                                 | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i>                                         | Unit Cost<br><i>(\$ K)</i> | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1.1.1) SMCM UUV (Knifefish) <sup>(†)</sup>                               |             | 2019 | General Dynamics<br>MS / Mcleansville, NC                               | C / CPIF                             | NAVSEA          | Nov 2018      | May 2020                     | 1                                                            | 13,135.000                 | N                      |                               |                   |
| 2.1.1) UISS Training Equipment                                           |             | 2018 | Textron / Hunt Valley, MD                                               | C / FPIF                             | NAVSEA          | Aug 2018      | Feb 2020                     | 2                                                            | 1,505.000                  | N                      |                               |                   |
| 2.1.1) UISS Training Equipment                                           |             | 2019 | Textron / Hunt Valley, MD                                               | C / FPIF                             | NAVSEA          | Dec 2018      | Jun 2020                     | 2                                                            | 946.500                    | N                      |                               |                   |
| <sup>(†)</sup> indicates the presence of a P-21                          |             |      |                                                                         |                                      |                 |               |                              |                                                              |                            |                        |                               |                   |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |       |      |         |          |                            |                     |                                                                         |     |     |     |     |     |     |     |     |     |     |     | Date: February 2018                                          |     |     |     |     |     |     |     |     |     |     |     |         |   |
|--------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|-------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|---|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |       |      |         |          |                            |                     | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |     |     |     |     |     |     |     |     |     |     |     | Item Number / Title [DODIC]:<br>3 / UNMANNED SYSTEMS [UNMAN] |     |     |     |     |     |     |     |     |     |     |     |         |   |
| Cost Elements<br>(Units in Each)                                         |       |      |         |          |                            |                     | Fiscal Year 2018                                                        |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 2019                                             |     |     |     |     |     |     |     |     |     |     |     | BALANCE |   |
| OCO                                                                      | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2017 | BAL DUE AS OF 1 OCT | Calendar Year 2018                                                      |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 2019                                           |     |     |     |     |     |     |     |     |     |     |     |         |   |
|                                                                          |       |      |         |          |                            |                     | OCT                                                                     | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                                                          | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |         |   |
| 1.1.1) SMCM UUV (Knifefish)                                              |       |      |         |          |                            |                     |                                                                         |     |     |     |     |     |     |     |     |     |     |     |                                                              |     |     |     |     |     |     |     |     |     |     |     |         |   |
|                                                                          | 1     | 2019 | NAVY    |          | 1                          | 0                   | 1                                                                       |     |     |     |     |     |     |     |     |     |     |     |                                                              | A - | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -       | 1 |
|                                                                          |       |      |         |          |                            |                     |                                                                         | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP                                                          | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP     |   |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |                  |      |         |             |                                        |                              |                    |             |             |                                                                         |             |             |             |             |             |             |                    |             |             | Date: February 2018                                          |             |             |             |             |             |             |             |             |             |             |             |
|--------------------------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|--------------------|-------------|-------------|-------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|-------------|-------------|--------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |                  |      |         |             |                                        |                              |                    |             |             | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |             |             |             |             |             |             |                    |             |             | Item Number / Title [DODIC]:<br>3 / UNMANNED SYSTEMS [UNMAN] |             |             |             |             |             |             |             |             |             |             |             |
| Cost Elements<br>(Units in Each)                                         |                  |      |         |             |                                        |                              | Fiscal Year 2020   |             |             |                                                                         |             |             |             |             |             |             | Fiscal Year 2021   |             |             |                                                              |             |             |             |             |             |             |             |             |             | BALANCE     |             |
| O<br>C<br>C<br>O                                                         | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2019 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2020 |             |             |                                                                         |             |             |             |             |             |             | Calendar Year 2021 |             |             |                                                              |             |             |             |             |             |             |             |             |             |             |             |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                                             | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G        | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V                                                  | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G |             | S<br>E<br>P |
| 1.1.1) SMCM UUV (Knifefish)                                              |                  |      |         |             |                                        |                              |                    |             |             |                                                                         |             |             |             |             |             |             |                    |             |             |                                                              |             |             |             |             |             |             |             |             |             |             |             |
|                                                                          | 1                | 2019 | NAVY    | 1           | 0                                      | 1                            | -                  | -           | -           | -                                                                       | -           | -           | -           | 1           |             |             |                    |             |             |                                                              |             |             |             |             |             |             |             |             |             |             | 0           |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                                             | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G        | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V                                                  | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |             |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                |                |              |                                                                         |                    |                      |                      | Date: February 2018                                          |                    |                      |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------|----------------|--------------|-------------------------------------------------------------------------|--------------------|----------------------|----------------------|--------------------------------------------------------------|--------------------|----------------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |                                |                |              | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |                    |                      |                      | Item Number / Title [DODIC]:<br>3 / UNMANNED SYSTEMS [UNMAN] |                    |                      |                      |
| MFR<br>Ref<br>#                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Manufacturer<br>Name - Location           | Production Rates (Each / Year) |                |              | Procurement Leadtime (Months)                                           |                    |                      |                      |                                                              |                    |                      |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           | MSR For 2019                   | 1-8-5 For 2019 | MAX For 2019 | Initial                                                                 |                    |                      |                      | Reorder                                                      |                    |                      |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                           |                                |                |              | ALT<br>Prior to Oct 1                                                   | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 | ALT<br>Prior to Oct 1                                        | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | General Dynamics MS -<br>Mcleansville, NC | 2                              | 4              | 10           | 3                                                                       | 3                  | 18                   | 21                   | 0                                                            | 3                  | 15                   | 18                   |
| <p>"A" in the Delivery Schedule indicates the Contract Award Date.</p> <p><b>Note:</b> Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).</p> |                                           |                                |                |              |                                                                         |                    |                      |                      |                                                              |                    |                      |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               | Date: February 2018                                       |                     |               |                      |                     |               |                      |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |  |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>4 / OTHER SYSTEMS [OTHER] |                     |               |                      |                     |               |                      |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                     |               |                      |                     |               |                                                                         |                     |               | MDAP/MAIS Code:      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| Resource Summary                                                                                                                       |  |                     |               | Prior Years          |                     |               | FY 2017                                                                 |                     |               | FY 2018              |                     |               | FY 2019 Base                                              |                     |               | FY 2019 OCO          |                     |               | FY 2019 Total        |  |  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |  |                     |               | -                    |                     |               | -                                                                       |                     |               | -                    |                     |               | -                                                         |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |  |                     |               | 271.464              |                     |               | 13.443                                                                  |                     |               | 17.818               |                     |               | 11.522                                                    |                     |               | 0.000                |                     |               | 11.522               |  |  |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                                       |                     |               | -                    |                     |               | -                                                         |                     |               | -                    |                     |               | -                    |  |  |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |  |                     |               | 271.464              |                     |               | 13.443                                                                  |                     |               | 17.818               |                     |               | 11.522                                                    |                     |               | 0.000                |                     |               | 11.522               |  |  |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                                       |                     |               | -                    |                     |               | -                                                         |                     |               | -                    |                     |               | -                    |  |  |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |  |                     |               | 271.464              |                     |               | 13.443                                                                  |                     |               | 17.818               |                     |               | 11.522                                                    |                     |               | 0.000                |                     |               | 11.522               |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |  |                     |               | -                    |                     |               | -                                                                       |                     |               | -                    |                     |               | -                                                         |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |  |                     |               | -                    |                     |               | -                                                                       |                     |               | -                    |                     |               | -                                                         |                     |               | -                    |                     |               | -                    |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| Cost Elements                                                                                                                          |  | Prior Years         |               |                      | FY 2017             |               |                                                                         | FY 2018             |               |                      | FY 2019 Base        |               |                                                           | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |  |  |
|                                                                                                                                        |  | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                    | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                      | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |  |  |
| Hardware - LV083 - AIMS Cost                                                                                                           |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| Non Recurring Cost                                                                                                                     |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| 1.1.1) AIMS                                                                                                                            |  | -                   | -             | 9.574                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 0.000                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Non Recurring Cost                                                                                                           |  | -                   | -             | 9.574                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 0.000                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Hardware - LV083 - AIMS Cost                                                                                                 |  | -                   | -             | 9.574                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 0.000                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Hardware - LV085 - MAGNETIC SILENCING FACILITY UPGRADES Cost                                                                           |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                           |                     |               |                      |                     |               |                      |  |  |
| 2.1.1) MSF PEARL HARBOR TREATMENT UPGRADE                                                                                              |  | 11,244.000          | 1             | 11.244               | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 0.000                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.2) MSF NORFOLK TREATMENT UPGRADE                                                                                                   |  | -                   | -             | 14.457               | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 0.000                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| 2.1.3) MSF MEASUREMENT SYSTEM UPGRADE                                                                                                  |  | 81,743.000          | 1             | 81.743               | -                   | -             | 13.443                                                                  | -                   | -             | 17.818               | -                   | -             | 11.522                                                    | -                   | -             | 0.000                | -                   | -             | 11.522               |  |  |
| 2.1.4) MAGNETIC SILENCING FACILITY UPGRADES                                                                                            |  | -                   | -             | 5.652                | -                   | -             | 0.000                                                                   | -                   | -             | 0.000                | -                   | -             | 0.000                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 113.096              | -                   | -             | 13.443                                                                  | -                   | -             | 17.818               | -                   | -             | 11.522                                                    | -                   | -             | 0.000                | -                   | -             | 11.522               |  |  |
| Subtotal: Hardware - LV085 - MAGNETIC SILENCING FACILITY UPGRADES Cost                                                                 |  | -                   | -             | 113.096              | -                   | -             | 13.443                                                                  | -                   | -             | 17.818               | -                   | -             | 11.522                                                    | -                   | -             | 0.000                | -                   | -             | 11.522               |  |  |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      | Date: February 2018                                       |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                       |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>2622 / Minesweeping System Replacement |               |                      |                     |               |                      | Item Number / Title [DODIC]:<br>4 / OTHER SYSTEMS [OTHER] |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                      |                                                                         |               |                      | MDAP/MAIS Code:     |               |                      |                                                           |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      |                                                           |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                                 |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO                                               |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                     | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                       | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - LVCA1 - SEA BOTTOM MAPPING Cost                                                     |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      |                                                           |               |                      |                     |               |                      |
| Non Recurring Cost                                                                             |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      |                                                           |               |                      |                     |               |                      |
| 3.1.1) SEA BOTTOM MAPPING                                                                      | -                   | -             | 1.711                | -                   | -             | 0.000                | -                                                                       | -             | 0.000                | -                   | -             | 0.000                | -                                                         | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Non Recurring Cost                                                                   | -                   | -             | 1.711                | -                   | -             | 0.000                | -                                                                       | -             | 0.000                | -                   | -             | 0.000                | -                                                         | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - LVCA1 - SEA BOTTOM MAPPING Cost                                           | -                   | -             | 1.711                | -                   | -             | 0.000                | -                                                                       | -             | 0.000                | -                   | -             | 0.000                | -                                                         | -             | 0.000                | -                   | -             | 0.000                |
| Support - Prior Years Cumulative Funding Cost                                                  |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      |                                                           |               |                      |                     |               |                      |
| 4.1) Production Engineering                                                                    | -                   | -             | 39.030               | -                   | -             | 0.000                | -                                                                       | -             | 0.000                | -                   | -             | 0.000                | -                                                         | -             | 0.000                | -                   | -             | 0.000                |
| 4.3) Prior Years Cumulative Funding                                                            | -                   | -             | 108.053              | -                   | -             | 0.000                | -                                                                       | -             | 0.000                | -                   | -             | 0.000                | -                                                         | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Support - Prior Years Cumulative Funding Cost                                        | -                   | -             | 147.083              | -                   | -             | 0.000                | -                                                                       | -             | 0.000                | -                   | -             | 0.000                | -                                                         | -             | 0.000                | -                   | -             | 0.000                |
| Gross/Weapon System Cost                                                                       | -                   | -             | 271.464              | -                   | -             | 13.443               | -                                                                       | -             | 17.818               | -                   | -             | 11.522               | -                                                         | -             | 0.000                | -                   | -             | 11.522               |
|                                                                                                |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      |                                                           |               |                      |                     |               |                      |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                       |                    |                |                |                                               |                    |                      |                                                                  |                                            |                | <b>Date:</b> February 2018 |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2624 / Shallow Water MCM |                                            |                |                            |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                  | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                    |                    |                |                |                                               |                    |                      |                                                                  |                                            |                |                            |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                   | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                           | -                  | -              | -              | -                                             | -                  | -                    | -                                                                | -                                          | -              | -                          | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                      | 48.473             | 8.875          | 8.796          | 8.616                                         | 0.000              | 8.616                | 8.730                                                            | 5.595                                      | 5.703          | 5.811                      | -                  | 100.599        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                   | -                  | -              | -              | -                                             | -                  | -                    | -                                                                | -                                          | -              | -                          | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                         | 48.473             | 8.875          | 8.796          | 8.616                                         | 0.000              | 8.616                | 8.730                                                            | 5.595                                      | 5.703          | 5.811                      | -                  | 100.599        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                   | -                  | -              | -              | -                                             | -                  | -                    | -                                                                | -                                          | -              | -                          | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                             | <b>48.473</b>      | <b>8.875</b>   | <b>8.796</b>   | <b>8.616</b>                                  | <b>0.000</b>       | <b>8.616</b>         | <b>8.730</b>                                                     | <b>5.595</b>                               | <b>5.703</b>   | <b>5.811</b>               | <b>-</b>           | <b>100.599</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                           |                    |                |                |                                               |                    |                      |                                                                  |                                            |                |                            |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                | -                  | 0.523          | 0.073          | -                                             | -                  | -                    | -                                                                | -                                          | -              | -                          | -                  | 0.596          |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                              | -                  | -              | -              | -                                             | -                  | -                    | -                                                                | -                                          | -              | -                          | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                  | -                  | -              | -              | -                                             | -                  | -                    | -                                                                | -                                          | -              | -                          | -                  | -              |

**Description:**

The FY 2019 funding request was reduced by \$0.047 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

This program provides a combination of US Navy projects planned to counter the threat to amphibious landing forces from known and projected foreign land/sea mines, obstacles in the beach zone and surf zone approaches to amphibious assault areas. It is a system of systems (Countermines/Counter Obstacle, Intelligence/Surveillance/Reconnaissance/Targeting (ISR/T), Navigation/Virtual Marking/Integration, C4I/Data Fusion) that provides a full assault breaching capability. This program is an essential element to the Marine Corps Ship To Objective Maneuver Concept of Operations.

This procurement line supports the COBRA program of record, delivering COBRA systems to Navy helicopter wings to provide initial proficiency training to Navy aircrews. COBRA systems are also procured under BLI 1601 LCS Mission Modules. The 1601 COBRA systems provide the deployable combat capability to LCS mission packages.

[P5 / SW004: COASTAL BATTLEFIELD RECONNAISSANCE AND ANALYSIS (COBRA)]: The mission of the AN/DVS-1 COBRA is to conduct unmanned aerial tactical reconnaissance in the littoral battlespace for detection and localization of minefields and obstacles in the surf zone and beach zone prior to an amphibious assault. The COBRA Airborne Payload will be carried on the MQ-8B Fire Scout. This allows operators and other personnel to remain at a safe distance from the mine and obstacle belts and enemy direct and indirect fire. COBRA will be embarked in the Littoral Combat Ship (LCS) as part of the Mine Countermeasures Mission Package (MP).

COBRA provides the (ISR/T) part of the Assault Breaching System of systems. One system consists of two Airborne Mine Counter Measures (AMCM) Payloads and one Post Mission Analysis Station. Block I introduces a daytime, surface laid minefield and obstacle detection capability for the Beach Zone. Block II adds a surfzone and night (darkness) detection capability. COBRA will be a modular payload architecture of, and integrated with, the MQ-8B Fire Scout VTUAV and will serve as a "detect" sensor within the LCS Mine Warfare mission package as part of amphibious assault breaching.

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2624 / Shallow Water MCM |
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|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Exhibits Schedule |                                       |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|---------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5               | 1 / Shallow Water Mine CM Ship        | P-5a, P-21  |       |                | - / 48.473                               | - / 8.875                                | - / 8.796                                | - / 8.616                                | - / 0.000                                | - / 8.616                                |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b> |             |       |                | <b>- / 48.473</b>                        | <b>- / 8.875</b>                         | <b>- / 8.796</b>                         | <b>- / 8.616</b>                         | <b>- / 0.000</b>                         | <b>- / 8.616</b>                         |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

FY 2019 funding supports the baseline program which will procure one COBRA system to be integrated on the MQ-8B FIRESOUL. These systems provide the fleet with the required training assets to certify the pilots and crew to operate and maintain these systems before being deployed on the LCS.



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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               | Date: February 2018                                            |                   |               |                      |                   |               |                      |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |  |                   |               |                      |                   |               | P-1 Line Item Number / Title:<br>2624 / Shallow Water MCM |                   |               |                      |                   |               | Item Number / Title [DODIC]:<br>1 / Shallow Water Mine CM Ship |                   |               |                      |                   |               |                      |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                   |               |                      |                   |               |                                                           |                   |               | MDAP/MAIS Code:      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| Resource Summary                                                                                                                       |  |                   |               | Prior Years          |                   |               | FY 2017                                                   |                   |               | FY 2018              |                   |               | FY 2019 Base                                                   |                   |               | FY 2019 OCO          |                   |               | FY 2019 Total        |  |  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |  |                   |               | -                    |                   |               | -                                                         |                   |               | -                    |                   |               | -                                                              |                   |               | -                    |                   |               | -                    |  |  |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |  |                   |               | 48.473               |                   |               | 8.875                                                     |                   |               | 8.796                |                   |               | 8.616                                                          |                   |               | 0.000                |                   |               | 8.616                |  |  |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                   |               | -                    |                   |               | -                                                         |                   |               | -                    |                   |               | -                                                              |                   |               | -                    |                   |               | -                    |  |  |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |  |                   |               | 48.473               |                   |               | 8.875                                                     |                   |               | 8.796                |                   |               | 8.616                                                          |                   |               | 0.000                |                   |               | 8.616                |  |  |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                   |               | -                    |                   |               | -                                                         |                   |               | -                    |                   |               | -                                                              |                   |               | -                    |                   |               | -                    |  |  |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |  |                   |               | 48.473               |                   |               | 8.875                                                     |                   |               | 8.796                |                   |               | 8.616                                                          |                   |               | 0.000                |                   |               | 8.616                |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |  |                   |               | -                    |                   |               | 0.523                                                     |                   |               | 0.073                |                   |               | -                                                              |                   |               | -                    |                   |               | -                    |  |  |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                   |  |                   |               | -                    |                   |               | -                                                         |                   |               | -                    |                   |               | -                                                              |                   |               | -                    |                   |               | -                    |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| Cost Elements                                                                                                                          |  | Prior Years       |               |                      | FY 2017           |               |                                                           | FY 2018           |               |                      | FY 2019 Base      |               |                                                                | FY 2019 OCO       |               |                      | FY 2019 Total     |               |                      |  |  |
|                                                                                                                                        |  | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                      | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                           | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |  |  |
| Hardware - SW003: LANDING CRAFT UTILITY (LCU) NAVIGATION UPGRADE Cost                                                                  |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| 1.1.1) LCU NAVIGATION UPGRADES                                                                                                         |  | -                 | -             | 1.479                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                 | -             | 1.479                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |  |  |
| Subtotal: Hardware - SW003: LANDING CRAFT UTILITY (LCU) NAVIGATION UPGRADE Cost                                                        |  | -                 | -             | 1.479                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |  |  |
| Hardware - SW004: COASTAL BATTLEFIELD RECONNAISSANCE AND ANALYSIS (COBRA) Cost                                                         |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |  |  |
| 2.1.1) SW0041 COBRA BLOCK 1 <sup>(†)</sup>                                                                                             |  | 15,826K           | 1             | 15.826               | 8,500K            | 1             | 8.500                                                     | 8,550K            | 1             | 8.550                | 8,550K            | 1             | 8.550                                                          | -                 | -             | -                    | 8,550K            | 1             | 8.550                |  |  |
| 2.1.2) SW00411 COBRA BLOCK 1 SPARES, TRAINING                                                                                          |  | -                 | -             | 2.034                | -                 | -             | 0.130                                                     | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |  |  |
| 2.1.3) SW00411 COBRA BLOCK 1 MOD UPGRADES                                                                                              |  | -                 | -             | 19.456               | -                 | -             | 0.245                                                     | -                 | -             | 0.246                | -                 | -             | 0.066                                                          | -                 | -             | -                    | -                 | -             | 0.066                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                 | -             | 37.316               | -                 | -             | 8.875                                                     | -                 | -             | 8.796                | -                 | -             | 8.616                                                          | -                 | -             | -                    | -                 | -             | 8.616                |  |  |
| Subtotal: Hardware - SW004: COASTAL BATTLEFIELD RECONNAISSANCE AND ANALYSIS (COBRA) Cost                                               |  | -                 | -             | 37.316               | -                 | -             | 8.875                                                     | -                 | -             | 8.796                | -                 | -             | 8.616                                                          | -                 | -             | -                    | -                 | -             | 8.616                |  |  |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               | Date: February 2018                                            |                   |               |                      |                   |               |                      |
|------------------------------------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|-----------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                       |                   |               |                      |                   |               | P-1 Line Item Number / Title:<br>2624 / Shallow Water MCM |                   |               |                      |                   |               | Item Number / Title [DODIC]:<br>1 / Shallow Water Mine CM Ship |                   |               |                      |                   |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                   |               |                      |                   |               |                                                           |                   |               | MDAP/MAIS Code:      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| Cost Elements                                                                                  | Prior Years       |               |                      | FY 2017           |               |                                                           | FY 2018           |               |                      | FY 2019 Base      |               |                                                                | FY 2019 OCO       |               |                      | FY 2019 Total     |               |                      |
|                                                                                                | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                      | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                           | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - SW005: AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE Cost                           |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| Recurring Cost                                                                                 |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| 3.1.1) AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE                                           | -                 | -             | 6.359                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Subtotal: Recurring Cost                                                                       | -                 | -             | 6.359                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Subtotal: Hardware - SW005: AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE Cost                 | -                 | -             | 6.359                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Hardware - SW061: LANDING CRAFT AIR CUSHION (LCAC) AUTOPILOT UPGRADE Cost                      |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| Recurring Cost                                                                                 |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| 4.1.1) LCAC AUTOPILOT UPGRADES                                                                 | -                 | -             | 2.286                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Subtotal: Recurring Cost                                                                       | -                 | -             | 2.286                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Subtotal: Hardware - SW061: LANDING CRAFT AIR CUSHION (LCAC) AUTOPILOT UPGRADE Cost            | -                 | -             | 2.286                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Support - SW830: PRODUCTION ENGINEERING Cost                                                   |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |
| 5.1) PRODUCTION ENGINEERING                                                                    | -                 | -             | 1.033                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Subtotal: Support - SW830: PRODUCTION ENGINEERING Cost                                         | -                 | -             | 1.033                | -                 | -             | -                                                         | -                 | -             | -                    | -                 | -             | -                                                              | -                 | -             | -                    | -                 | -             | -                    |
| Gross/Weapon System Cost                                                                       | -                 | -             | 48.473               | -                 | -             | 8.875                                                     | -                 | -             | 8.796                | -                 | -             | 8.616                                                          | -                 | -             | 0.000                | -                 | -             | 8.616                |
| (†) indicates the presence of a P-5a                                                           |                   |               |                      |                   |               |                                                           |                   |               |                      |                   |               |                                                                |                   |               |                      |                   |               |                      |

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|---------------------------------------------------------------------------------|--|--|--|------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------|--|--|--|--|
| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |  |  |  |                                                                  |  |  |  | <b>Date:</b> February 2018                                            |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2624 / Shallow Water MCM |  |  |  | <b>Item Number / Title [DODIC]:</b><br>1 / Shallow Water Mine CM Ship |  |  |  |  |

| Cost Elements                                 | O<br>C<br>O | FY   | Contractor and Location | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
|-----------------------------------------------|-------------|------|-------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| 2.1.1) SW0041 COBRA BLOCK<br>1 <sup>(t)</sup> |             | 2017 | ARETE / TUCSON, AZ      | C / FFP                              | NSWC PC         | May 2017      | May 2019                     | 1             | 8,500K            | Y                      |                               |                   |
| 2.1.1) SW0041 COBRA BLOCK<br>1 <sup>(t)</sup> |             | 2018 | ARETE / TUCSON, AZ      | C / FFP                              | NSWC PC         | Mar 2018      | Mar 2020                     | 1             | 8,550K            | Y                      |                               |                   |
| 2.1.1) SW0041 COBRA BLOCK<br>1 <sup>(t)</sup> |             | 2019 | ARETE / TUCSON, AZ      | C / FFP                              | NSWC PC         | Mar 2019      | Mar 2021                     | 1             | 8,550K            | Y                      |                               |                   |

<sup>(t)</sup> indicates the presence of a P-21

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| Exhibit P-21, Production Schedule: PB 2019 Navy                          |                  |      |         |             |                                        |                              |                                                           |             |             |             |             |             |             |             |             |             |             |             | Date: February 2018                                            |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|-----------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |                  |      |         |             |                                        |                              | P-1 Line Item Number / Title:<br>2624 / Shallow Water MCM |             |             |             |             |             |             |             |             |             |             |             | Item Number / Title [DODIC]:<br>1 / Shallow Water Mine CM Ship |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cost Elements<br><i>(Units in Each)</i>                                  |                  |      |         |             |                                        |                              | Fiscal Year 2017                                          |             |             |             |             |             |             |             |             |             |             |             | Fiscal Year 2018                                               |             |             |             |             |             |             |             |             |             |             |             | B<br>A<br>L<br>A<br>N<br>C<br>E |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| O<br>C<br>C<br>O                                                         | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2016 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2017                                        |             |             |             |             |             |             |             |             |             |             |             | Calendar Year 2018                                             |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T                                               | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T                                                    | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                          |                  |      |         |             |                                        |                              |                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                                |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2.1.1) SW0041 COBRA BLOCK 1                                              |                  |      |         |             |                                        |                              |                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                                |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Prior Years Deliveries: 1                                                |                  |      |         |             |                                        |                              |                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                                |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                                          | 1                | 2017 | NAVY    | 1           | 0                                      | 1                            |                                                           |             |             |             |             |             |             |             |             |             |             |             | A                                                              | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -                               | - | - | - | - | - | 1 |   |   |   |   |   |   |   |   |   |   |
|                                                                          | 1                | 2018 | NAVY    | 1           | 0                                      | 1                            |                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                                |             |             |             |             |             |             |             |             |             |             |             | A                               | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
|                                                                          | 1                | 2019 | NAVY    | 1           | 0                                      | 1                            |                                                           |             |             |             |             |             |             |             |             |             |             |             |                                                                |             |             |             |             |             |             |             |             |             |             |             |                                 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T                                               | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T                                                    | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

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|--------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|--------------------|-----|-----|-----------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|--|---------|---|---|
| Exhibit P-21, Production Schedule: PB 2019 Navy                          |       |      |         |          |                            |                     |                    |     |     |                                                           |     |     |     |     |     |     |     |     |     | Date: February 2018                                            |     |     |     |     |     |     |     |     |     |     |   |  |         |   |   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |       |      |         |          |                            |                     |                    |     |     | P-1 Line Item Number / Title:<br>2624 / Shallow Water MCM |     |     |     |     |     |     |     |     |     | Item Number / Title [DODIC]:<br>1 / Shallow Water Mine CM Ship |     |     |     |     |     |     |     |     |     |     |   |  |         |   |   |
| Cost Elements<br>(Units in Each)                                         |       |      |         |          |                            |                     | Fiscal Year 2019   |     |     |                                                           |     |     |     |     |     |     |     |     |     | Fiscal Year 2020                                               |     |     |     |     |     |     |     |     |     |     |   |  | BALANCE |   |   |
| OCO                                                                      | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2018 | BAL DUE AS OF 1 OCT | Calendar Year 2019 |     |     |                                                           |     |     |     |     |     |     |     |     |     | Calendar Year 2020                                             |     |     |     |     |     |     |     |     |     |     |   |  |         |   |   |
|                                                                          |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV                                                            | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |   |  |         |   |   |
| 2.1.1) SW0041 COBRA BLOCK 1                                              |       |      |         |          |                            |                     |                    |     |     |                                                           |     |     |     |     |     |     |     |     |     |                                                                |     |     |     |     |     |     |     |     |     |     |   |  |         |   |   |
| Prior Years Deliveries: 1                                                |       |      |         |          |                            |                     |                    |     |     |                                                           |     |     |     |     |     |     |     |     |     |                                                                |     |     |     |     |     |     |     |     |     |     |   |  |         |   |   |
|                                                                          | 1     | 2017 | NAVY    | 1        | 0                          | 1                   | -                  | -   | -   | -                                                         | -   | -   | -   | 1   |     |     |     |     |     |                                                                |     |     |     |     |     |     |     |     |     |     |   |  |         | 0 |   |
|                                                                          | 1     | 2018 | NAVY    | 1        | 0                          | 1                   | -                  | -   | -   | -                                                         | -   | -   | -   | -   | -   | -   | -   | -   | -   | -                                                              | -   | -   | 1   |     |     |     |     |     |     |     |   |  |         |   | 0 |
|                                                                          | 1     | 2019 | NAVY    | 1        | 0                          | 1                   |                    |     |     |                                                           |     | A   | -   | -   | -   | -   | -   | -   | -   | -                                                              | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1 |  |         |   |   |
|                                                                          |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                       | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV                                                            | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |   |  |         |   |   |

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|--------------------------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|--------------------|-------------|-------------|-----------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|-------------|---------------------|----------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| Exhibit P-21, Production Schedule: PB 2019 Navy                          |                  |      |         |             |                                        |                              |                    |             |             |                                                           |             |             |             |             |             |             |                    |             | Date: February 2018 |                                                                |             |             |             |             |             |             |             |             |             |             |             |   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |                  |      |         |             |                                        |                              |                    |             |             | P-1 Line Item Number / Title:<br>2624 / Shallow Water MCM |             |             |             |             |             |             |                    |             |                     | Item Number / Title [DODIC]:<br>1 / Shallow Water Mine CM Ship |             |             |             |             |             |             |             |             |             |             |             |   |
| Cost Elements<br>(Units in Each)                                         |                  |      |         |             |                                        |                              | Fiscal Year 2021   |             |             |                                                           |             |             |             |             |             |             | Fiscal Year 2022   |             |                     |                                                                |             |             |             |             |             |             |             |             |             | BALANCE     |             |   |
| O<br>C<br>C<br>O                                                         | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2020 | BAL<br>DUE<br>AS OF<br>1 OCT | Calendar Year 2021 |             |             |                                                           |             |             |             |             |             |             | Calendar Year 2022 |             |                     |                                                                |             |             |             |             |             |             |             |             |             |             |             |   |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                               | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G        | S<br>E<br>P | O<br>C<br>T         | N<br>O<br>V                                                    | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G |             | S<br>E<br>P |   |
| 2.1.1) SW0041 COBRA BLOCK 1                                              |                  |      |         |             |                                        |                              |                    |             |             |                                                           |             |             |             |             |             |             |                    |             |                     |                                                                |             |             |             |             |             |             |             |             |             |             |             |   |
| Prior Years Deliveries: 1                                                |                  |      |         |             |                                        |                              |                    |             |             |                                                           |             |             |             |             |             |             |                    |             |                     |                                                                |             |             |             |             |             |             |             |             |             |             |             |   |
|                                                                          | 1                | 2017 | NAVY    | 1           | 1                                      | 0                            |                    |             |             |                                                           |             |             |             |             |             |             |                    |             |                     |                                                                |             |             |             |             |             |             |             |             |             |             |             | 0 |
|                                                                          | 1                | 2018 | NAVY    | 1           | 1                                      | 0                            |                    |             |             |                                                           |             |             |             |             |             |             |                    |             |                     |                                                                |             |             |             |             |             |             |             |             |             |             |             | 0 |
|                                                                          | 1                | 2019 | NAVY    | 1           | 0                                      | 1                            | -                  | -           | -           | -                                                         | -           | 1           |             |             |             |             |                    |             |                     |                                                                |             |             |             |             |             |             |             |             |             | 0           |             |   |
|                                                                          |                  |      |         |             |                                        |                              | O<br>C<br>T        | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                               | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G        | S<br>E<br>P | O<br>C<br>T         | N<br>O<br>V                                                    | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |             |   |

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|--------------------------------------------------------------------------|---------------------------------|--------------------------------|----------------|--------------|-----------------------------------------------------------|--------------------|----------------------|----------------------|----------------------------------------------------------------|--------------------|----------------------|----------------------|
| Exhibit P-21, Production Schedule: PB 2019 Navy                          |                                 |                                |                |              |                                                           |                    |                      |                      | Date: February 2018                                            |                    |                      |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |                                 |                                |                |              | P-1 Line Item Number / Title:<br>2624 / Shallow Water MCM |                    |                      |                      | Item Number / Title [DODIC]:<br>1 / Shallow Water Mine CM Ship |                    |                      |                      |
| MFR<br>Ref<br>#                                                          | Manufacturer<br>Name - Location | Production Rates (Each / Year) |                |              | Procurement Leadtime (Months)                             |                    |                      |                      |                                                                |                    |                      |                      |
|                                                                          |                                 | MSR For 2019                   | 1-8-5 For 2019 | MAX For 2019 | Initial                                                   |                    |                      |                      | Reorder                                                        |                    |                      |                      |
|                                                                          |                                 |                                |                |              | ALT<br>Prior to Oct 1                                     | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 | ALT<br>Prior to Oct 1                                          | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 |
| 1                                                                        | ARETE - TUCSON, AZ              | 2                              | 6              | 12           | 0                                                         | 0                  | 24                   | 24                   | 0                                                              | 0                  | 24                   | 24                   |

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                         |                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years    | FY 2017      | FY 2018       | FY 2019 Base  | FY 2019 OCO  | FY 2019 Total | FY 2020       | FY 2021       | FY 2022       | FY 2023       | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 204.461        | 7.102        | 15.923        | 10.703        | 0.000        | 10.703        | 32.733        | 33.815        | 30.060        | 23.037        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 204.461        | 7.102        | 15.923        | 10.703        | 0.000        | 10.703        | 32.733        | 33.815        | 30.060        | 23.037        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>204.461</b> | <b>7.102</b> | <b>15.923</b> | <b>10.703</b> | <b>0.000</b> | <b>10.703</b> | <b>32.733</b> | <b>33.815</b> | <b>30.060</b> | <b>23.037</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                |              |               |               |              |               |               |               |               |               |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -              | 0.062        | 0.061         | 0.149         | -            | 0.149         | 0.269         | 0.233         | 0.159         | 0.145         | Continuing        | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                  | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -              | -            | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |

## Description:

The FY 2019 funding request was reduced by \$4.331 million to account for the availability of prior year execution balances.

NAVSTAR Global Positioning System (NAVSTAR GPS) provides assured and protected navigation solutions to Warfighters through supported, affordable, and integrated systems, and is the primary source of positioning, navigation and timing information for the DoD.

[P3A / (1R0013) Navigation Warfare (NAVWAR)]: NAVWAR ensures that U. S. military forces maintain access to the GPS in an electronically challenging battle space, delivers the capability to deny adversaries access to and use of GPS during military operations, and serves to preserve the peaceful use of GPS. Navy GPS Enhanced User Equipment (UE) Operational Requirements Document directs that future UE will incorporate an increased anti-jam capability. NAVWAR counters the threat by increasing resistance to intentional or unintentional interference. Sea NAVWAR Strategy comprises of 2 program increments, the first increment (near term) is to install GPS anti-jam antenna system (GAS-1) on surface platforms. The second increment (long term) is to install Advanced Digital Antenna Production (ADAP) antennas on surface platforms. The ADAP antenna improves upon GAS-1 performance by providing simultaneous dual frequency nulling, and built in test ability. Procurement and installation of anti-jam GPS antennas and modernized user equipment is required to ensure the continuation of GPS signals from space in a hostile jamming environment. The Sea NAVWAR program will equip selected ships with anti-jam GPS antennas to ensure the continued availability of GPS to support surface combat operations and provide reliable GPS and other positioning, navigation and timing data to ship-board Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR), Combat, and Weapons Systems.

[P3A - 2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS)]: The GPS-based PNT Service (GPNTS) system is the primary PNT system for the Navy to ensure reliable PNT capability and interoperability insertion in GPS receivers and associated Command, Control, Computers, Communications and Intelligence (C4I) and combat systems in a denied environment. GPNTS provides precise PNT data required for combat, weapons, command, control, communications, navigation, and other systems, as well as providing the time synchronization critical to the network environments. GPNTS backfits current PNT/GPS systems and forward fit new platforms. GPNTS will host the Air Force GPS Directorate-developed Military GPS User Equipment (MGUE) card, allowing access to the new more accurate and secure GPS Military-Code (M-Code) signal. GPNTS provides more robust and secure GPS/PNT capabilities than is currently in the Fleet. The system provides the capability to migrate non-real time GPS data toward a Common Computing Environment (CCE) and provide a path for the integration of advanced navigation systems and sensors.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                    |                                                                                                                 |                    |              |                                               |                                              |                                                                              |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                 |                                                                                                                 |                    |              |                                               |                                              | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                             |                                                                                                                 |                    |              | <b>Program Elements for Code B Items:</b> N/A |                                              |                                                                              | <b>Other Related Program Elements:</b> N/A   |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                 |                                                                                                                 |                    |              |                                               |                                              |                                                                              |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                    |              |                                               | <b>Prior Years</b>                           | <b>FY 2017</b>                                                               | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                  | <b>Title*</b>                                                                                                   | <b>Subexhibits</b> | <b>ID CD</b> | <b>MDAP/MAIS Code</b>                         | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                 | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                  | 1 / NAVSTAR GPS Receivers (Space)                                                                               |                    |              |                                               | - / 156.416                                  | - / 0.000                                                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                 | 1 / (1R0013) Navigation Warfare (NAVWAR) (Upgrade)                                                              |                    |              |                                               | - / 48.045                                   | - / 3.372                                                                    | - / 6.213                                    | - / 2.563                                    | - / 0.000                                    | - / 2.563                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                 | 2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS (Ship Alt) |                    |              |                                               | - / 0.000                                    | - / 3.730                                                                    | - / 9.710                                    | - / 8.140                                    | - / 0.000                                    | - / 8.140                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                          | <b>Total Gross/Weapon System Cost</b>                                                                           |                    |              |                                               | <b>- / 204.461</b>                           | <b>- / 7.102</b>                                                             | <b>- / 15.923</b>                            | <b>- / 10.703</b>                            | <b>- / 0.000</b>                             | <b>- / 10.703</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                    |              |                                               | <b>FY 2020</b>                               | <b>FY 2021</b>                                                               | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                  | <b>Title*</b>                                                                                                   | <b>Subexhibits</b> | <b>ID CD</b> | <b>MDAP/MAIS Code</b>                         | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                 | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                  | 1 / NAVSTAR GPS Receivers (Space)                                                                               |                    |              |                                               | - / -                                        | - / -                                                                        | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                                 | 1 / (1R0013) Navigation Warfare (NAVWAR) (Upgrade)                                                              |                    |              |                                               | - / 6.083                                    | - / 3.220                                                                    | - / 3.337                                    | - / 1.360                                    | Continuing                                   | Continuing                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                 | 2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS (Ship Alt) |                    |              |                                               | - / 26.650                                   | - / 30.595                                                                   | - / 26.723                                   | - / 21.677                                   | Continuing                                   | Continuing                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                          | <b>Total Gross/Weapon System Cost</b>                                                                           |                    |              |                                               | <b>- / 32.733</b>                            | <b>- / 33.815</b>                                                            | <b>- / 30.060</b>                            | <b>- / 23.037</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                                                                                                                                                                                 |                                                                                                                 |                    |              |                                               |                                              |                                                                              |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                               |                                                                                                                 |                    |              |                                               |                                              |                                                                              |                                              |                                              |                                              |                                              |
| <b>Justification:</b><br>Navigation Warfare (NAVWAR) - Sea NAVWAR will procure and field dual Advanced Digital Antenna Production (ADAP) Fiber Optic Antenna Link (FOAL) antennas in FY19.<br><br>GPS-based Positioning Navigation and Timing (PNT) Service (GPNTS) program will procure and field Low Rate Initial Production (LRIP) units in FY19. |                                                                                                                 |                    |              |                                               |                                              |                                                                              |                                              |                                              |                                              |                                              |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|-------------------|------------------|------------|-----------------------------------------------------------------------|------------------|------------|-------------------|------------------|------------|-------------------------------------------------------------------|------------------|---------------|-------------------|------------------|------------|-------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                              |                  |            |                   |                  |            |                                                                       |                  |            |                   |                  |            | Date: February 2018                                               |                  |               |                   |                  |            |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                              |                  |            |                   |                  |            | P-1 Line Item Number / Title:<br>2657 / NAVSTAR GPS Receivers (Space) |                  |            |                   |                  |            | Item Number / Title [DODIC]:<br>1 / NAVSTAR GPS Receivers (Space) |                  |               |                   |                  |            |                   |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                      |                  |            |                   |                  |            |                                                                       |                  |            |                   | MDAP/MAIS Code:  |            |                                                                   |                  |               |                   |                  |            |                   |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |            |                   | Prior Years      |            | FY 2017                                                               |                  | FY 2018    |                   | FY 2019 Base     |            | FY 2019 OCO                                                       |                  | FY 2019 Total |                   |                  |            |                   |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |            |                   | -                |            | -                                                                     |                  | -          |                   | -                |            | -                                                                 |                  | -             |                   |                  |            |                   |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                             |                  |            |                   | 156.416          |            | 0.000                                                                 |                  | 0.000      |                   | 0.000            |            | 0.000                                                             |                  | 0.000         |                   |                  |            |                   |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                          |                  |            |                   | -                |            | -                                                                     |                  | -          |                   | -                |            | -                                                                 |                  | -             |                   |                  |            |                   |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                |                  |            |                   | 156.416          |            | 0.000                                                                 |                  | 0.000      |                   | 0.000            |            | 0.000                                                             |                  | 0.000         |                   |                  |            |                   |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                          |                  |            |                   | -                |            | -                                                                     |                  | -          |                   | -                |            | -                                                                 |                  | -             |                   |                  |            |                   |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                           |                  |            |                   | 156.416          |            | 0.000                                                                 |                  | 0.000      |                   | 0.000            |            | 0.000                                                             |                  | 0.000         |                   |                  |            |                   |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                |                  |            |                   |                  |            |                                                                       |                  |            |                   |                  |            |                                                                   |                  |               |                   |                  |            |                   |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |            |                   | -                |            | -                                                                     |                  | -          |                   | -                |            | -                                                                 |                  | -             |                   |                  |            |                   |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                       |                  |            |                   | -                |            | -                                                                     |                  | -          |                   | -                |            | -                                                                 |                  | -             |                   |                  |            |                   |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                        |                  |            |                   |                  |            |                                                                       |                  |            |                   |                  |            |                                                                   |                  |               |                   |                  |            |                   |
| Cost Elements                                                                                                                                                                                                                                                                                                                                                                                                                                         | Prior Years      |            |                   | FY 2017          |            |                                                                       | FY 2018          |            |                   | FY 2019 Base     |            |                                                                   | FY 2019 OCO      |               |                   | FY 2019 Total    |            |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                                     | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                                 | Unit Cost (\$ K) | Qty (Each)    | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Flyaway - Consolidated Prior Year Requirements Cost                                                                                                                                                                                                                                                                                                                                                                                                   |                  |            |                   |                  |            |                                                                       |                  |            |                   |                  |            |                                                                   |                  |               |                   |                  |            |                   |
| Recurring Cost                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |            |                   |                  |            |                                                                       |                  |            |                   |                  |            |                                                                   |                  |               |                   |                  |            |                   |
| 1.1.1) Consolidated Prior Year Requirements                                                                                                                                                                                                                                                                                                                                                                                                           | 124.833          | 1,253      | 156.416           | -                | -          | 0.000                                                                 | -                | -          | 0.000             | -                | -          | 0.000                                                             | -                | -             | 0.000             | -                | -          | 0.000             |
| Subtotal: Recurring Cost                                                                                                                                                                                                                                                                                                                                                                                                                              | -                | -          | 156.416           | -                | -          | 0.000                                                                 | -                | -          | 0.000             | -                | -          | 0.000                                                             | -                | -             | 0.000             | -                | -          | 0.000             |
| Subtotal: Flyaway - Consolidated Prior Year Requirements Cost                                                                                                                                                                                                                                                                                                                                                                                         | -                | -          | 156.416           | -                | -          | 0.000                                                                 | -                | -          | 0.000             | -                | -          | 0.000                                                             | -                | -             | 0.000             | -                | -          | 0.000             |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                                                                                                                                              | -                | -          | 156.416           | -                | -          | 0.000                                                                 | -                | -          | 0.000             | -                | -          | 0.000                                                             | -                | -             | 0.000             | -                | -          | 0.000             |
| Remarks:<br>[Flyaway] The quantities and amounts included within the Consolidated Prior Year Requirements are inclusive of PU 1R009 Navigation Sensor System Interface (NAVSSI) FMP, PU 1R011 Navigation Sensor System Interface (NAVSSI) Retrofit, PU 1R018 Defense Advance GPS Receiver (DAGR), PU 1R777 DSA and Installation for NAVSSI FMP and NAVSSI Retrofit and PU 1R555 NAVSSI FMP Production Support and NAVSSI Retrofit Production Support. |                  |            |                   |                  |            |                                                                       |                  |            |                   |                  |            |                                                                   |                  |               |                   |                  |            |                   |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|---------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                              |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                      |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / (1R0013) Navigation Warfare (NAVWAR) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                                                              |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                 |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                  | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 48.045             | 3.372          | 6.213          | 2.563                                                                        | 0.000              | 2.563                | 6.083                  | 3.220          | 3.337          | 1.360                                                                           | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 48.045             | 3.372          | 6.213          | 2.563                                                                        | 0.000              | 2.563                | 6.083                  | 3.220          | 3.337          | 1.360                                                                           | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>48.045</b>      | <b>3.372</b>   | <b>6.213</b>   | <b>2.563</b>                                                                 | <b>0.000</b>       | <b>2.563</b>         | <b>6.083</b>           | <b>3.220</b>   | <b>3.337</b>   | <b>1.360</b>                                                                    | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                              |                    |                      |                        |                |                |                                                                                 |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| <p><b>Description:</b></p> <p>Procurement and installation of anti-jam (AJ) Global Positioning System (GPS) user equipment and prevention equipment is required to ensure the continued utility of GPS signals from space in a hostile jamming environment. The Sea Navigation Warfare (NAVWAR) program will equip selected ships with anti-jam GPS antennas to ensure the continued availability of GPS to support surface combat operations and provide reliable GPS and other navigation sensor data to ship-board Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance(C4ISR), Combat, and Weapons Systems.</p> <p>Sea NAVWAR will procure and field dual Advanced Digital Antenna Production (ADAP) Fiber Optic Antenna Link (FOAL) antennas in FY19.</p> |                    |                |                |                                                                              |                    |                      |                        |                |                |                                                                                 |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                      |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>1 / (1R0013) Navigation Warfare (NAVWAR) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                              |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                 |                                |                                |  |
| <b>Models of Systems Affected:</b> Shore Stations, Ships                        |                                |                                |                                | <b>Modification Type:</b> Upgrade                                            |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604777N |                                |                                                                                 |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                  | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| <b>Modification Item 1 of 1:</b> (1R0013) Navigation Warfare (NAVWAR)           |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| 1.1.1) NAVWAR (GAS1, ADAP) - NonOrganic <sup>(1)</sup>                          | 401 / 29.025                   | - / -                          | 12 / 5.184                     | 2 / 0.876                                                                    | - / -                          | 2 / 0.876                      | 12 / 5.327                     | 3 / 1.356                              | 6 / 2.760                      | 1 / 0.465                                                                       | Continuing                     | Continuing                     |  |
| Subtotal: Recurring                                                             | - / 29.025                     | - / -                          | - / 5.184                      | - / 0.876                                                                    | - / -                          | - / 0.876                      | - / 5.327                      | - / 1.356                              | - / 2.760                      | - / 0.465                                                                       | Continuing                     | Continuing                     |  |
| Subtotal: (1R0013) Navigation Warfare (NAVWAR)                                  | 401 / 29.025                   | - / -                          | 12 / 5.184                     | 2 / 0.876                                                                    | - / -                          | 2 / 0.876                      | 12 / 5.327                     | 3 / 1.356                              | 6 / 2.760                      | 1 / 0.465                                                                       | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                                   | - / 29.025                     | - / -                          | - / 5.184                      | - / 0.876                                                                    | - / -                          | - / 0.876                      | - / 5.327                      | - / 1.356                              | - / 2.760                      | - / 0.465                                                                       | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                         |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| 2.1) Production Support                                                         | - / 2.945                      | - / 0.000                      | - / 0.259                      | - / 0.039                                                                    | - / 0.000                      | - / 0.039                      | - / 0.266                      | - / 0.068                              | - / 0.106                      | - / 0.021                                                                       | - / -                          | - / 3.704                      |  |
| 2.2) DSA - FMP                                                                  | - / 6.388                      | - / 0.252                      | - / 0.380                      | - / 0.088                                                                    | - / 0.000                      | - / 0.088                      | - / 0.230                      | - / 0.176                              | - / 0.066                      | - / 0.064                                                                       | - / -                          | - / 7.644                      |  |
| Subtotal: Support                                                               | - / 9.333                      | - / 0.252                      | - / 0.639                      | - / 0.127                                                                    | - / -                          | - / 0.127                      | - / 0.496                      | - / 0.244                              | - / 0.172                      | - / 0.085                                                                       | - / 0.000                      | - / 11.348                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| <b>Modification Item 1 of 1:</b> (1R0013) Navigation Warfare (NAVWAR)           | - / 9.687                      | - / 3.120                      | - / 0.390                      | - / 1.560                                                                    | - / 0.000                      | - / 1.560                      | - / 0.260                      | - / 1.620                              | - / 0.405                      | - / 0.810                                                                       | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                          | - / 9.687                      | - / 3.120                      | - / 0.390                      | - / 1.560                                                                    | - / -                          | - / 1.560                      | - / 0.260                      | - / 1.620                              | - / 0.405                      | - / 0.810                                                                       | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>48.045</b>                  | <b>3.372</b>                   | <b>6.213</b>                   | <b>2.563</b>                                                                 | <b>0.000</b>                   | <b>2.563</b>                   | <b>6.083</b>                   | <b>3.220</b>                           | <b>3.337</b>                   | <b>1.360</b>                                                                    | <b>Continuing</b>              | <b>Continuing</b>              |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|----------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                   |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |           |                                |           |                                |                                              |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / (1R0013) Navigation Warfare (NAVWAR) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                       |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> (1R0013) Navigation Warfare (NAVWAR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: RAYTHEON SYSTEMS LTD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Manufacturer Location: HARLOW-UNITED KINGDOM |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 9   |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                              |                                |           | <b>FY 2021</b>                 |           |                                                                                 |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           | May 2018                       |           |                                |           | Feb 2019                                                                     |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           | Feb 2019                       |           |                                |           | Nov 2019                                                                     |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Tiger Team:: Installation Name: NAVWAR Inc 1 - GAS1, Inc 2 - ADAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                           |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                              | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                  |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                              | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                  |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | 374 / 9.687                    |           | 24 / 3.120                     |           | 3 / 0.390                      |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | - / -                          |           | - / -                          |           | - / -                                                                           |           | 0 / 0.000                      |           | 401 / 13.197                   |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | 12 / 1.560                     |           | 0 / 0.000                                                                    |           | 12 / 1.560                     |           | - / -                          |                                              | - / -                          |           | - / -                          |           | - / -                                                                           |           | 0 / 0.000                      |           | 12 / 1.560                     |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | 2 / 0.260                      |                                              | - / -                          |           | - / -                          |           | - / -                                                                           |           | 0 / 0.000                      |           | 2 / 0.260                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | 12 / 1.620                     |           | - / -                          |           | - / -                                                                           |           | 0 / 0.000                      |           | 12 / 1.620                     |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | - / -                          |           | 3 / 0.405                      |           | - / -                                                                           |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | - / -                          |           | - / -                          |           | 6 / 0.810                                                                       |           | 0 / 0.000                      |           | 6 / 0.810                      |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | - / -                          |           | - / -                          |           | - / -                                                                           |           | 1 / 0.270                      |           | 1 / 0.270                      |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                              | - / -                          |           | - / -                          |           | - / -                                                                           |           | 0 / 0.000                      |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | 374 / 9.687                    |           | 24 / 3.120                     |           | 3 / 0.390                      |           | 12 / 1.560                     |           | 0 / 0.000                                                                    |           | 12 / 1.560                     |           | 2 / 0.260                      |                                              | 12 / 1.620                     |           | 3 / 0.405                      |           | 6 / 0.810                                                                       |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                              |                                |           | <b>FY 2021</b>                 |           |                                                                                 |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                    | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                    | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                       | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 374        | 5                              | 3         | 4                              | 9         | 3                              | 2         | 1                              | -         | -                                                                            | -         | 2                              | 10        | -                              | -                                            | 1                              | 1         | -                              | 2         | 4                                                                               | 6         | -                              | -         | 2                              | 1         | -              | -         | 3         | 3         |           |            |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 368        | 6                              | 5         | 3                              | 4         | 9                              | 3         | 2                              | 1         | -                                                                            | -         | -                              | 2         | 10                             | -                                            | -                              | 1         | 1                              | -         | 2                                                                               | 4         | 6                              | -         | -                              | 2         | 1              | -         | -         | 3         |           |            |
| <b>Footnotes:</b><br>(1) 1)Advanced Digital Antenna Production (ADAP) consists of two hardware configurations; single ADAP and Dual ADAP Fiber Optic Antenna Link (FOAL), which drives the variation in average unit price each fiscal year. 2)A single ADAP shipset consists of one single ADAP antenna and is installed on smaller surface platforms. A single ADAP may range in cost from \$135K to \$145K depending on the Economic Order Quantity Pricing and International exchange rates relevant at time of contract award. 3)A Dual ADAP FOAL shipset consists of two ADAP antennas, two FOAL drawers, & two component kits and are |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                              |                                |           |                                |           |                                                                                 |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                              |                                                                                 | <b>Date:</b> February 2018 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) | <b>Modification Number / Title:</b><br>1 / (1R0013) Navigation Warfare (NAVWAR) |                            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                              | <b>MDAP/MAIS Code:</b>                                                          |                            |
| <p>installed on large surface platforms. An ADAP FOAL may range in cost from \$407K to \$465K depending on Economic Order Quantity Pricing and International exchange rates relevant at time of contract award. The components kits are procured on two separate Indefinite Delivery Indefinite Quantity (IDIQ) contracts competed annually and integrated with the ADAP by SPAWAR Systems Center, Pacific. 4)Delay in delivery of prior year procured units is due to certification issue of sub-vendor, for component of the ADAP antenna. Certification received and deliveries are on schedule and aligned with current installation plan. 5)1-2 months of integration upon receipt of ADAP Antennas.</p> |                                                                              |                                                                                 |                            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|------------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                     |                                                                              |                      |                        |                |                | <b>Date:</b> February 2018                                                                                                                   |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                     |                                                                              |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                                                              |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                           | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                                                               | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                            | -                    | -                      | -              | -              | -                                                                                                                                            | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.000              | 3.730          | 9.710          | 8.140               | 0.000                                                                        | 8.140                | 26.650                 | 30.595         | 26.723         | 21.677                                                                                                                                       | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                            | -                    | -                      | -              | -              | -                                                                                                                                            | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.000              | 3.730          | 9.710          | 8.140               | 0.000                                                                        | 8.140                | 26.650                 | 30.595         | 26.723         | 21.677                                                                                                                                       | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                            | -                    | -                      | -              | -              | -                                                                                                                                            | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>0.000</b>       | <b>3.730</b>   | <b>9.710</b>   | <b>8.140</b>        | <b>0.000</b>                                                                 | <b>8.140</b>         | <b>26.650</b>          | <b>30.595</b>  | <b>26.723</b>  | <b>21.677</b>                                                                                                                                | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     |                                                                              |                      |                        |                |                |                                                                                                                                              |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                            | -                    | -                      | -              | -              | -                                                                                                                                            | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                            | -                    | -                      | -              | -              | -                                                                                                                                            | -                  | -                 |
| <p><b>Description:</b></p> <p>The GPS-based PNT Service (GPNTS) system is the primary PNT system for the Navy to ensure reliable PNT capability and interoperability insertion in GPS receivers and associated Command, Control, Computers, Communications and Intelligence (C4I) and combat systems in a denied environment. GPNTS provides precise PNT data required for many combat, weapons, command, control, communications, navigation, and other systems, as well as providing the time synchronization critical to the network environments. GPNTS backfits current PNT/GPS systems as well as serve as a forward fit for new platforms. GPNTS will host the GPS Directorate-developed MGUE card, allowing access to the new more accurate and secure GPS Military-Code (M-Code) signal. GPNTS provides more robust and secure GPS/PNT capabilities than is currently in the Fleet. The system provides the capability to migrate non-real time GPS data toward a Common Computing Environment (CCE) and provide a path for the integration of advanced navigation systems and sensors.</p> <p>GPNTS program will procure and field Low Rate Initial Production (LRIP) units in FY19.</p> |                    |                |                |                     |                                                                              |                      |                        |                |                |                                                                                                                                              |                    |                   |



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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                         |                                |                                |                                |                                                                       |                                |                                |                                | Date: February 2018                                                                                                                   |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                    |                                |                                |                                | P-1 Line Item Number / Title:<br>2657 / NAVSTAR GPS Receivers (Space) |                                |                                |                                | Modification Number / Title:<br>2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                            |                                |                                |                                |                                                                       |                                |                                | MDAP/MAIS Code:                |                                                                                                                                       |                                |                                |                                |                                |
| Models of Systems Affected: Shore Stations, Ships                                                                           |                                |                                | Modification Type: Ship Alt    |                                                                       |                                |                                |                                | Related RDT&E PEs: 0604777N                                                                                                           |                                |                                |                                |                                |
| Financial Plan                                                                                                              | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                          | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                                                               | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                                                                 |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| Modification Item 1 of 1: (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| B Kits                                                                                                                      |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| Recurring                                                                                                                   |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| 1.1.1) GPNTS (Configuration B) - Ship - NonOrganic <sup>(2)</sup>                                                           | - / -                          | - / -                          | 4 / 2.343                      | 5 / 2.940                                                             | - / -                          | 5 / 2.940                      | 32 / 18.880                    | 12 / 7.104                                                                                                                            | 25 / 14.850                    | 6 / 3.576                      | Continuing                     | Continuing                     |
| 1.1.2) GPNTS (Shore) - NonOrganic <sup>(3)</sup>                                                                            | - / -                          | 6 / 3.480                      | 4 / 2.344                      | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                                                                                                                                 | - / -                          | - / -                          | - / -                          | 10 / 5.824                     |
| Subtotal: Recurring                                                                                                         | - / 0.000                      | - / 3.480                      | - / 4.687                      | - / 2.940                                                             | - / -                          | - / 2.940                      | - / 18.880                     | - / 7.104                                                                                                                             | - / 14.850                     | - / 3.576                      | Continuing                     | Continuing                     |
| Subtotal: (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS)                 | - / -                          | 6 / 3.480                      | 8 / 4.687                      | 5 / 2.940                                                             | - / -                          | 5 / 2.940                      | 32 / 18.880                    | 12 / 7.104                                                                                                                            | 25 / 14.850                    | 6 / 3.576                      | Continuing                     | Continuing                     |
| Subtotal: Procurement, All Modification Items                                                                               | - / 0.000                      | - / 3.480                      | - / 4.687                      | - / 2.940                                                             | - / -                          | - / 2.940                      | - / 18.880                     | - / 7.104                                                                                                                             | - / 14.850                     | - / 3.576                      | Continuing                     | Continuing                     |
| Support (All Modification Items)                                                                                            |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| 2.1) Production Support                                                                                                     | - / -                          | - / 0.174                      | - / 0.235                      | - / 0.130                                                             | - / -                          | - / 0.130                      | - / 0.944                      | - / 0.355                                                                                                                             | - / 0.743                      | - / 0.179                      | - / -                          | - / 2.760                      |
| 2.2) DSA - FMP <sup>(4)</sup>                                                                                               | - / -                          | - / 0.076                      | - / 1.188                      | - / 0.270                                                             | - / -                          | - / 0.270                      | - / 3.426                      | - / 1.312                                                                                                                             | - / 2.910                      | - / 0.722                      | - / -                          | - / 9.904                      |
| Subtotal: Support                                                                                                           | - / 0.000                      | - / 0.250                      | - / 1.423                      | - / 0.400                                                             | - / -                          | - / 0.400                      | - / 4.370                      | - / 1.667                                                                                                                             | - / 3.653                      | - / 0.901                      | - / 0.000                      | - / 12.664                     |
| Installation                                                                                                                |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| Modification Item 1 of 1: (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) | - / 0.000                      | - / 0.000                      | - / 3.600                      | - / 4.800                                                             | - / 0.000                      | - / 4.800                      | - / 3.400                      | - / 21.824                                                                                                                            | - / 8.220                      | - / 17.200                     | - / 8.900                      | - / 67.944                     |
| Subtotal: Installation                                                                                                      | - / 0.000                      | - / -                          | - / 3.600                      | - / 4.800                                                             | - / -                          | - / 4.800                      | - / 3.400                      | - / 21.824                                                                                                                            | - / 8.220                      | - / 17.200                     | - / 8.900                      | - / 67.944                     |
| Total                                                                                                                       |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                                                                       |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                                                                           | 0.000                          | 3.730                          | 9.710                          | 8.140                                                                 | 0.000                          | 8.140                          | 26.650                         | 30.595                                                                                                                                | 26.723                         | 21.677                         | Continuing                     | Continuing                     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                         |                                       |                                       |                                       |                                                                              |                                       |                                       | <b>Date:</b> February 2018                  |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                    |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) |                                       |                                       |                                             | <b>Modification Number / Title:</b><br>2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |                                       |                                       |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                            |                                       |                                       |                                       |                                                                              |                                       |                                       | <b>MDAP/MAIS Code:</b>                      |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Modification Item 1 of 1:</b> (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |                                       |                                       |                                       |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Manufacturer Information</b>                                                                                                    |                                       |                                       |                                       |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Manufacturer Name: TBD <sup>(5)</sup>                                                                                              |                                       |                                       |                                       |                                                                              |                                       |                                       | Manufacturer Location: TBD                  |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                     |                                       |                                       |                                       |                                                                              |                                       |                                       | Production Leadtime <i>(in Months)</i> : 10 |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                                                       | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                                               | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                              |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                                                     | Jan 2018                              | Jan 2018                              |                                       |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                                                     | Nov 2018                              | Nov 2018                              |                                       |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Manufacturer Name: TBD <sup>(6)</sup>                                                                                              |                                       |                                       |                                       |                                                                              |                                       |                                       | Manufacturer Location: TBD                  |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 4                                                                                     |                                       |                                       |                                       |                                                                              |                                       |                                       | Production Leadtime <i>(in Months)</i> : 9  |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                                                       | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                                               | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                              |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                                                     |                                       | Jan 2018                              | Feb 2019                              |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                                                     |                                       | Nov 2018                              | Nov 2019                              |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Installation Information</b>                                                                                                    |                                       |                                       |                                       |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Method of Implementation:</b> Tiger Team:: Installation Name: GPNTS - Config B                                                  |                                       |                                       |                                       |                                                                              |                                       |                                       |                                             |                                                                                                                                              |                                       |                                       |                                       |                                       |
| <b>Installation Cost</b>                                                                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                              | <b>FY 2021</b>                                                                                                                               | <b>FY 2022</b>                        | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                                                                    | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>       | <i>Qty (Each) / Total Cost (\$ M)</i>                                                                                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| Prior Years                                                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| FY 2017                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| FY 2018                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | 4 / 2.400                                                                    | 0 / 0.000                             | 4 / 2.400                             | - / -                                       | - / -                                                                                                                                        | - / -                                 | - / -                                 | 0 / 0.000                             | 4 / 2.400                             |
| FY 2019                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | 5 / 3.400                                   | - / -                                                                                                                                        | - / -                                 | - / -                                 | 0 / 0.000                             | 5 / 3.400                             |
| FY 2020                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | 32 / 21.824                                                                                                                                  | - / -                                 | - / -                                 | 0 / 0.000                             | 32 / 21.824                           |
| FY 2021                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                                                                        | 12 / 8.220                            | - / -                                 | 0 / 0.000                             | 12 / 8.220                            |
| FY 2022                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                                                                        | - / -                                 | 25 / 17.200                           | 0 / 4.760                             | 25 / 21.960                           |
| FY 2023                                                                                                                            | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                                                                        | - / -                                 | - / -                                 | 6 / 4.140                             | 6 / 4.140                             |
| To Complete                                                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                       | - / -                                                                                                                                        | - / -                                 | - / -                                 | 0 / 0.000                             | - / -                                 |
| <b>Total</b>                                                                                                                       | - / -                                 | - / -                                 | - / -                                 | 4 / 2.400                                                                    | 0 / 0.000                             | 4 / 2.400                             | 5 / 3.400                                   | 32 / 21.824                                                                                                                                  | 12 / 8.220                            | 25 / 17.200                           | 6 / 8.900                             | 84 / 61.944                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                              | <b>Date:</b> February 2018                                                                                                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7 | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) | <b>Modification Number / Title:</b><br>2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS)

**Installation Information**

**Method of Implementation:** Tiger Team:: Installation Name: GPNTS - Config B

**Installation Schedule**

|     | PYS | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   | FY 2021 |   |    |    | FY 2022 |   |   |   | FY 2023 |   |    |    | TC | Tot |
|-----|-----|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|----|----|---------|---|---|---|---------|---|----|----|----|-----|
| In  | -   | -       | - | - | - | -       | - | - | - | -       | - | 2 | 2 | -       | 3 | 2 | - | -       | 7 | 10 | 15 | -       | 8 | 3 | 1 | -       | 6 | 10 | 9  | 6  | 84  |
| Out | -   | -       | - | - | - | -       | - | - | - | -       | - | - | 2 | 2       | - | 3 | 2 | -       | - | 7  | 10 | 15      | - | 8 | 3 | 1       | - | 6  | 10 | 15 | 84  |

**Method of Implementation:** Tiger Team:: Installation Name: GPNTS - Shore

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | 6 / 3.600                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 3.600                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | 4 / 2.400                      | 0 / 0.000                      | 4 / 2.400                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 4 / 2.400                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | 6 / 3.600                      | 4 / 2.400                      | 0 / 0.000                      | 4 / 2.400                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 10 / 6.000                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | 1  | 5  | -       | 2  | 2  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 10 |     |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | 1  | 5       | -  | 2  | 2  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 10 |     |

**Footnotes:**  
(2) Anticipated unit cost for each procured Ship set is a Dual Redundant System consisting of two Racks and two Anti-Jam Antennas.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | <b>Date:</b> February 2018                                                                                                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>P-1 Line Item Number / Title:</b><br>2657 / NAVSTAR GPS Receivers (Space) | <b>Modification Number / Title:</b><br>2 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation, & Timing Service (GPNTS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              | <b>MDAP/MAIS Code:</b>                                                                                                                       |
| <div>(3) Shore units are required for IOT&amp;E and will be fielded as operational installations.</div> <div>(4) DSA estimates are based off of a percentage of the total installation, with 75% of costs being required the year prior for all pre-installation design work and 25% required the year of the actual installation. The FY18 to FY19 DSA cost variance is due to ship platform type being installed and configuration setup of the installation.</div> <div>(5) Shore: IDIQ Contract Type</div> <div>(6) Ship: IDIQ Contract Type</div> |                                                                              |                                                                                                                                              |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|--------------------------------------------------------------------------------------|---------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             |                                                                                      |         | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>2666 / American Forces Radio and TV Service (AFRTS) |         |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         | Program Elements for Code B Items: N/A |              |             |                                                                                      |         | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                                        | FY 2020 | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -                                      | -            | -           | -                                                                                    | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 33.350      | 4.577   | 2.730                                  | 2.626        | 0.000       | 2.626                                                                                | 2.679   | 2.729                               | 2.666   | 2.721   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -                                                                                    | -       | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 33.350      | 4.577   | 2.730                                  | 2.626        | 0.000       | 2.626                                                                                | 2.679   | 2.729                               | 2.666   | 2.721   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -                                                                                    | -       | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 33.350      | 4.577   | 2.730                                  | 2.626        | 0.000       | 2.626                                                                                | 2.679   | 2.729                               | 2.666   | 2.721   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -           | -       | -                                      | -            | -           | -                                                                                    | -       | -                                   | -       | -       | -           | -          |
| Flyaway Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -           | -       | -                                      | -            | -           | -                                                                                    | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           | -       | -                                      | -            | -           | -                                                                                    | -       | -                                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| K0001: American Forces Radio and Television Service (AFRTS) Program - AFRTS shipboard systems provide command information to deployed Sailors and Marines and allow for the distribution of AFRTS programming in order to provide situational awareness for forward deployed commanders with real-time news and information. The systems also provide programming to Sailors and Marines at sea worldwide as a Navy Quality of Life (QOL) initiative, staying in compliance with the Chief of Naval Operations (CNO) Shipboard Habitability Program. These systems contribute significantly to the habitability of Navy ships by providing and distributing news, command information, training, and entertainment programming using the latest technology available. These systems improve morale, combat effectiveness and retention rates of deployed personnel. All AFRTS systems use Commercial-Off-the-Shelf (COTS) equipment. Fleet Support Detachments (FSDs) are the installing agents for these systems. Each component replacement is made based on ship availability, condition of system, and is coordinated through the Type Commanders (TYCOMs). |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| [P5 / Site CCTV - Digital/300]: K0001 - Shipboard Information, Training and Entertainment (SITE) Closed Circuit Television (CCTV) - Digital/300 - Digital/300 is the next generation of the SITE 2000/300. This system is a digitally-based replacement for the 2000/300 playback. Each system is comprised of Commercial Off-The-Shelf (COTS) components that take three to twelve months to procure. Each component upgrade/replacement is made based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/replacement agents and condition of the system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| [P5 / Site CCTV - Digital/400]: Shipboard Information, Training and Entertainment (SITE) Closed Circuit Television (CCTV) - Digital/400 - is the next generation of the SITE 2000/400. This system is a digitally-based replacement for the 2000/400 playback. Requires manpower of one dedicated technician and operator. Each system is comprised of Commercial Off-The-Shelf (COTS) components that take three to twelve months to procure. Each component upgrade/replacement is made based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/replacement agents and condition of the system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| [P5 / Site CCTV - Digital/501]: Digital/500 - is the next generation of the Shipboard Information, Training and Entertainment (SITE) 2000/500. This system is a digitally-based replacement for the 2000/500 playback. Requires manpower of two dedicated technicians and three operators. Each system is comprised of Commercial Off-The-Shelf (COTS) components that take three to twelve months to procure. Each component upgrade/replacement is made based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/repair agents and condition of the system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |
| [P5 / Circuit 27TV Upgrade]: Circuit 27TV Upgrade - Upgrade to 14TV head end only that will allow the onboard Shipboard Information, Training and Entertainment (SITE) system to distribute Television Direct To Sailors (TV-DTS), AFRTS, and pier-side cable commercial programming. Each component upgrade/replacement is made based on ship availability by the Fleet Support Detachments (FSDs) as the installing/replacement agents and the condition of the system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         |                                        |              |             |                                                                                      |         |                                     |         |         |             |            |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               | <b>Date:</b> February 2018                                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                               | <b>P-1 Line Item Number / Title:</b><br>2666 / American Forces Radio and TV Service (AFRTS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                                  |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><br><p>[P5 / Shipboard Broadcast System (SBS)]: K0001-Shipboard Broadcast System (SBS): The SBS system replaces the Shipboard Information, Training and Entertainment (SITE) 300/400/501 systems with an Internet Protocol (IP) video system. It collects and converts video content from several sources: Navy Motion Picture Services (NMPS) programming via encrypted DVDs (nDVD), Video Server, and shipboard surveillance cameras; and distributes the signals via Circuit 30 in Standard or High Definition. Each system is comprised of Commercial Off-The-Shelf (COTS) equipment that takes six to twelve months to procure. Each system upgrade is done based on ship availability by the Fleet Support Detachments (FSDs) as the installing/replacing agent and condition of the system.</p> <p>[P5 / K0830 - Production Engineering]: Supports review and approval of any production contract technical documentation or the separate development of this documentation to include: signal flow diagrams, Preventive Maintenance Services (PMS), production drawings, provisioning technical documentation (PTD), Integrated Logistic Support (ILS), Program Support Data (PSD), Allowance Parts List (APL's), and engineering in support of final design reviews.</p> <p>[P5 / K0INS - Non-FMP Installation]: Supports the installation of Shipboard Information, Training and Entertainment (SITE), TV-DTS (TV-Direct to Sailor) system onboard Navy ships. Installations are performed by Defense Media Activity Agency (DMAA) Fleet Support Detachments (FSDs) and are based on Type Commander (TYCOM) nominations.</p> |                                               |                                                                                             |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                    |                                                  |             |                                               |                |                                          |                                                                                             |                                          | <b>Date:</b> February 2018               |                                          |                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------|-----------------------------------------------|----------------|------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment |                                                  |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>2666 / American Forces Radio and TV Service (AFRTS) |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                             |                                                  |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                                                  |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                 |                                                  |             |                                               |                |                                          |                                                                                             |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                    |                                                  |             |                                               |                | Prior Years                              | FY 2017                                                                                     | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                         | Title*                                           | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                                    | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                                  | 1 / American Forces Radio and TV Service (AFRTS) | P-5a        |                                               |                | - / 33.350                               | - / 4.577                                                                                   | - / 2.730                                | - / 2.626                                | - / 0.000                                | - / 2.626                                |
| <b>P-40</b>                                                                                                                                                                          | <b>Total Gross/Weapon System Cost</b>            |             |                                               |                | <b>- / 33.350</b>                        | <b>- / 4.577</b>                                                                            | <b>- / 2.730</b>                         | <b>- / 2.626</b>                         | <b>- / 0.000</b>                         | <b>- / 2.626</b>                         |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                 |                                                  |             |                                               |                |                                          |                                                                                             |                                          |                                          |                                          |                                          |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                               |                                                  |             |                                               |                |                                          |                                                                                             |                                          |                                          |                                          |                                          |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                   |               |                      |                   |               |                                                                                      |                   |               |                      |                   |               | Date: February 2018                                                              |                   |               |                      |                   |               |                      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|--------------------------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                               |                   |               |                      |                   |               | P-1 Line Item Number / Title:<br>2666 / American Forces Radio and TV Service (AFRTS) |                   |               |                      |                   |               | Item Number / Title [DODIC]:<br>1 / American Forces Radio and TV Service (AFRTS) |                   |               |                      |                   |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                   |               |                      |                   |               |                                                                                      |                   |               |                      | MDAP/MAIS Code:   |               |                                                                                  |                   |               |                      |                   |               |                      |
| Resource Summary                                                                                                                       |                   |               |                      | Prior Years       |               | FY 2017                                                                              |                   | FY 2018       |                      | FY 2019 Base      |               | FY 2019 OCO                                                                      |                   | FY 2019 Total |                      |                   |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                   |               |                      | -                 |               | -                                                                                    |                   | -             |                      | -                 |               | -                                                                                |                   | -             |                      |                   |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                   |               |                      | 33.350            |               | 4.577                                                                                |                   | 2.730         |                      | 2.626             |               | 0.000                                                                            |                   | 2.626         |                      |                   |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                   |               |                      | -                 |               | -                                                                                    |                   | -             |                      | -                 |               | -                                                                                |                   | -             |                      |                   |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                   |               |                      | 33.350            |               | 4.577                                                                                |                   | 2.730         |                      | 2.626             |               | 0.000                                                                            |                   | 2.626         |                      |                   |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                   |               |                      | -                 |               | -                                                                                    |                   | -             |                      | -                 |               | -                                                                                |                   | -             |                      |                   |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                   |               |                      | 33.350            |               | 4.577                                                                                |                   | 2.730         |                      | 2.626             |               | 0.000                                                                            |                   | 2.626         |                      |                   |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                   |               |                      |                   |               |                                                                                      |                   |               |                      |                   |               |                                                                                  |                   |               |                      |                   |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                   |               |                      | -                 |               | -                                                                                    |                   | -             |                      | -                 |               | -                                                                                |                   | -             |                      |                   |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                   |                   |               |                      | -                 |               | -                                                                                    |                   | -             |                      | -                 |               | -                                                                                |                   | -             |                      |                   |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                   |               |                      |                   |               |                                                                                      |                   |               |                      |                   |               |                                                                                  |                   |               |                      |                   |               |                      |
| Cost Elements                                                                                                                          | Prior Years       |               |                      | FY 2017           |               |                                                                                      | FY 2018           |               |                      | FY 2019 Base      |               |                                                                                  | FY 2019 OCO       |               |                      | FY 2019 Total     |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                                 | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                             | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware Cost                                                                                                                          |                   |               |                      |                   |               |                                                                                      |                   |               |                      |                   |               |                                                                                  |                   |               |                      |                   |               |                      |
| Recurring Cost                                                                                                                         |                   |               |                      |                   |               |                                                                                      |                   |               |                      |                   |               |                                                                                  |                   |               |                      |                   |               |                      |
| 1.1.1) Site CCTV - Digital/300 <sup>(†)</sup>                                                                                          | 80,714.29         | 28            | 2.260                | 95,000.00         | 5             | 0.475                                                                                | 95,000.00         | 2             | 0.190                | 10,000.00         | 2             | 0.020                                                                            | -                 | -             | -                    | 10,000.00         | 2             | 0.020                |
| 1.1.2) Site CCTV - Digital/400 <sup>(†)</sup>                                                                                          | 56,600.00         | 25            | 1.415                | 100,000.00        | 3             | 0.300                                                                                | 100,000.00        | 2             | 0.200                | 10,000.00         | 3             | 0.030                                                                            | -                 | -             | -                    | 10,000.00         | 3             | 0.030                |
| 1.1.3) Site CCTV - Digital/501 <sup>(†)</sup>                                                                                          | 110,600.00        | 5             | 0.553                | 115,000.00        | 1             | 0.115                                                                                | 120,000.00        | 1             | 0.120                | 10,000.00         | 2             | 0.020                                                                            | -                 | -             | -                    | 10,000.00         | 2             | 0.020                |
| 1.1.4) Circuit 27TV Upgrade <sup>(†)</sup>                                                                                             | 20,541.67         | 24            | 0.493                | 22,000.00         | 6             | 0.132                                                                                | -                 | -             | -                    | -                 | -             | -                                                                                | -                 | -             | -                    | -                 | -             | -                    |
| 1.1.5) Shipboard Broadcast System (SBS) <sup>(†)</sup>                                                                                 | -                 | -             | -                    | -                 | -             | -                                                                                    | -                 | -             | -                    | 302,666.00        | 1             | 0.303                                                                            | -                 | -             | -                    | 302,666.00        | 1             | 0.303                |
| Subtotal: Recurring Cost                                                                                                               | -                 | -             | 4.721                | -                 | -             | 1.022                                                                                | -                 | -             | 0.510                | -                 | -             | 0.373                                                                            | -                 | -             | -                    | -                 | -             | 0.373                |
| Subtotal: Hardware Cost                                                                                                                | -                 | -             | 4.721                | -                 | -             | 1.022                                                                                | -                 | -             | 0.510                | -                 | -             | 0.373                                                                            | -                 | -             | -                    | -                 | -             | 0.373                |
| Support Cost                                                                                                                           |                   |               |                      |                   |               |                                                                                      |                   |               |                      |                   |               |                                                                                  |                   |               |                      |                   |               |                      |
| 2.1) K0830 - Production Engineering                                                                                                    | -                 | -             | 25.129               | -                 | -             | 3.359                                                                                | -                 | -             | 2.024                | -                 | -             | 2.054                                                                            | -                 | -             | -                    | -                 | -             | 2.054                |
| 2.2) K01NS - Non-FMP Installation                                                                                                      | -                 | -             | 3.500                | -                 | -             | 0.196                                                                                | -                 | -             | 0.196                | -                 | -             | 0.199                                                                            | -                 | -             | -                    | -                 | -             | 0.199                |
| Subtotal: Support Cost                                                                                                                 | -                 | -             | 28.629               | -                 | -             | 3.555                                                                                | -                 | -             | 2.220                | -                 | -             | 2.253                                                                            | -                 | -             | -                    | -                 | -             | 2.253                |
| Gross/Weapon System Cost                                                                                                               | -                 | -             | 33.350               | -                 | -             | 4.577                                                                                | -                 | -             | 2.730                | -                 | -             | 2.626                                                                            | -                 | -             | 0.000                | -                 | -             | 2.626                |



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| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                             | <b>Date:</b> February 2018                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>P-1 Line Item Number / Title:</b><br>2666 / American Forces Radio and TV Service (AFRTS) | <b>Item Number / Title [DODIC]:</b><br>1 / American Forces Radio and TV Service (AFRTS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                             | <b>MDAP/MAIS Code:</b>                                                                  |
| <b>Remarks:</b><br>[Hardware] Costs for FY16, FY17 & FY18 CE 1.1.2, 1.1.3, 1.1.4 reflect full unit costs for SITE CCTV. Those units complete the fielding of the SITE 300(U), 400(U) and 501(U) digital systems throughout all applicable ship classes in FY18. FY19 and out procurements are in support of hardware components to maintain the SITE system due known obsolescence issues.<br><br>CE 1.1.5 shows the follow-on system to SITE CCTV, called SBS (Shipboard Broadcasting System). It uses IP technology, the new industry standard, and will be introduced starting in FY18 as aging SITE systems reach end of life.<br><br>[Hardware/Recurring]<br><br>(t) indicates the presence of a P-5a |                                                                                             |                                                                                         |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |             |      |                                                                                      |                                      |                 |               |                              | Date: February 2018                                                              |                   |                        |                               |                   |
|--------------------------------------------------------------------------|-------------|------|--------------------------------------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|----------------------------------------------------------------------------------|-------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |             |      | P-1 Line Item Number / Title:<br>2666 / American Forces Radio and TV Service (AFRTS) |                                      |                 |               |                              | Item Number / Title [DODIC]:<br>1 / American Forces Radio and TV Service (AFRTS) |                   |                        |                               |                   |
| Cost Elements                                                            | O<br>C<br>O | FY   | Contractor and Location                                                              | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i>                                                             | Unit Cost<br>(\$) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2012 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2012      | Dec 2012                     | 2                                                                                | 5,000.00          | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2013 | Various / Various                                                                    | MIPR                                 | T-ASA           | May 2013      | Nov 2013                     | 7                                                                                | 85,000.00         | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2014 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2014      | Dec 2014                     | 11                                                                               | 85,000.00         | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2015 | Various / Various                                                                    | MIPR                                 | T-ASA           | Mar 2015      | Sep 2015                     | 4                                                                                | 90,000.00         | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2016 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jan 2016      | Jul 2016                     | 4                                                                                | 90,000.00         | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2017 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2016      | Jun 2017                     | 5                                                                                | 95,000.00         | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2018 | Various / Various                                                                    | MIPR                                 | T-ASA           | Feb 2018      | Aug 2018                     | 2                                                                                | 95,000.00         | Y                      |                               |                   |
| 1.1.1) Site CCTV - Digital/300                                           |             | 2019 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2018      | Jun 2019                     | 2                                                                                | 10,000.00         | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2012 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2012      | Dec 2012                     | 10                                                                               | 5,000.00          | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2013 | Various / Various                                                                    | MIPR                                 | T-ASA           | May 2013      | Nov 2013                     | 3                                                                                | 90,000.00         | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2014 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2014      | Dec 2014                     | 6                                                                                | 90,000.00         | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2015 | Various / Various                                                                    | MIPR                                 | T-ASA           | Mar 2015      | Sep 2015                     | 3                                                                                | 90,000.00         | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2016 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jan 2016      | Jul 2016                     | 3                                                                                | 95,000.00         | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2017 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2016      | Jun 2017                     | 3                                                                                | 100,000.00        | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2018 | Various / Various                                                                    | MIPR                                 | T-ASA           | Feb 2018      | Aug 2018                     | 2                                                                                | 100,000.00        | Y                      |                               |                   |
| 1.1.2) Site CCTV - Digital/400                                           |             | 2019 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2018      | Jun 2019                     | 3                                                                                | 10,000.00         | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2012 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2012      | Dec 2012                     | 1                                                                                | 110,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2013 | Various / Various                                                                    | MIPR                                 | T-ASA           | May 2013      | Nov 2013                     | 1                                                                                | 103,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2014 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2014      | Dec 2014                     | 1                                                                                | 110,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2015 | Various / Various                                                                    | MIPR                                 | T-ASA           | Mar 2015      | Sep 2015                     | 1                                                                                | 115,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2016 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jan 2016      | Jul 2016                     | 1                                                                                | 115,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2017 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2016      | Jun 2017                     | 1                                                                                | 115,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2018 | Various / Various                                                                    | MIPR                                 | T-ASA           | Feb 2018      | Aug 2018                     | 1                                                                                | 120,000.00        | Y                      |                               |                   |
| 1.1.3) Site CCTV - Digital/501                                           |             | 2019 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2018      | Jun 2019                     | 2                                                                                | 10,000.00         | Y                      |                               |                   |
| 1.1.4) Circuit 27TV Upgrade                                              |             | 2013 | Various / Various                                                                    | MIPR                                 | T-ASA           | May 2013      | Nov 2013                     | 7                                                                                | 20,000.00         | Y                      |                               |                   |
| 1.1.4) Circuit 27TV Upgrade                                              |             | 2014 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jun 2014      | Dec 2014                     | 8                                                                                | 20,000.00         | Y                      |                               |                   |
| 1.1.4) Circuit 27TV Upgrade                                              |             | 2015 | Various / Various                                                                    | MIPR                                 | T-ASA           | Mar 2015      | Sep 2015                     | 5                                                                                | 21,000.00         | Y                      |                               |                   |
| 1.1.4) Circuit 27TV Upgrade                                              |             | 2016 | Various / Various                                                                    | MIPR                                 | T-ASA           | Jan 2016      | Jul 2016                     | 4                                                                                | 22,000.00         | Y                      |                               |                   |
| 1.1.4) Circuit 27TV Upgrade                                              |             | 2017 | Various / Various                                                                    | MIPR                                 | T-ASA           | Dec 2016      | Jun 2017                     | 6                                                                                | 22,000.00         | Y                      |                               |                   |
| 1.1.5) Shipboard Broadcast System (SBS)                                  |             | 2019 | VARIOIUS / VARIOUS                                                                   | MIPR                                 | T-ASA           | Dec 2018      | Jun 2019                     | 1                                                                                | 302,666.00        | Y                      |                               |                   |
|                                                                          |             |      |                                                                                      |                                      |                 |               |                              |                                                                                  |                   |                        |                               |                   |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------|--------------------|----------------------|---------------------------------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|---------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                | <b>Date:</b> February 2018 |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2676 / Strategic Platform Support Equip |                                            |                |                            |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                                 | <b>Other Related Program Elements:</b> N/A |                |                            |                    |               |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                |                            |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                  | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 37.683             | 8.972          | 6.889          | 9.467                                         | 0.000              | 9.467                | 7.973                                                                           | 8.018                                      | 4.980          | 6.241                      | -                  | 90.223        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 37.683             | 8.972          | 6.889          | 9.467                                         | 0.000              | 9.467                | 7.973                                                                           | 8.018                                      | 4.980          | 6.241                      | -                  | 90.223        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>37.683</b>      | <b>8.972</b>   | <b>6.889</b>   | <b>9.467</b>                                  | <b>0.000</b>       | <b>9.467</b>         | <b>7.973</b>                                                                    | <b>8.018</b>                               | <b>4.980</b>   | <b>6.241</b>               | <b>-</b>           | <b>90.223</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                |                            |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | 1.224          | 1.641          | 0.861                                         | -                  | 0.861                | 0.965                                                                           | 1.029                                      | 0.985          | 0.917                      | Continuing         | Continuing    |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -             |
| <p><b>Description:</b></p> <p>Funding in this P-1 line provides Non-Propulsion Electronics equipment that will be installed aboard TRIDENT Class submarines as part of the Obsolete Equipment Replacement (OER) Program.</p> <p>OER Program is the replacement of existing hardware/software that, though functional, has become operationally obsolete, is no longer in production or supportable with spare parts, or has a high failure rate making them no longer cost effective to maintain. OER hardware/software changes are expected to provide significant cost savings via reduced maintenance costs and use Commercial-Off-The-Shelf (COTS) technology wherever possible as long as all technical requirements are met.</p> <p>This funding line includes performance of the required fully integrated system level testing and certification of changes to the TRIDENT Combat systems prior to installation of the changes on the ship. Integrated testing and certification provides assurance that when the changes are installed in the ship, the TRIDENT Combat system will operate as designed, allowing the ships to maintain their operational schedules and mission capabilities.</p> <p>[P40A / CCS Revision Engineering Cert/Test]: This program develops upgrades to legacy systems to maintain required interface connectivity to other Program Acquisition Resource Manager (PARM)-managed subsystems in response to PARMs modernizations, or to address obsolescence, or where mandated requirement changes (example Cyber security) drive changes to hardware or software.</p> |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                |                            |                    |               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                       |             |                                               |                |                                          |                                                                                 |                                          | <b>Date:</b> February 2018               |                                          |                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|-----------------------------------------------|----------------|------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>2676 / Strategic Platform Support Equip |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                                      |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |                                               |                |                                          |                                                                                 |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                       |             |                                               |                | Prior Years                              | FY 2017                                                                         | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Title*                                | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                        | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Strategic Platform Support Equip      | P-5a        |                                               |                | - / 37.683                               | - / 8.972                                                                       | - / 6.889                                | - / 9.467                                | - / -                                    | - / 9.467                                |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Total Gross/Weapon System Cost</b> |             |                                               |                | <b>- / 37.683</b>                        | <b>- / 8.972</b>                                                                | <b>- / 6.889</b>                         | <b>- / 9.467</b>                         | <b>- / 0.000</b>                         | <b>- / 9.467</b>                         |
| <p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>                                                                                                                                                                                                            |                                       |             |                                               |                |                                          |                                                                                 |                                          |                                          |                                          |                                          |
| <p><b>Justification:</b></p> <p>The FY 2019 funding request was reduced by \$0.031 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> <p>The increased funding in FY19 is the result of synchronizing the SSBN Legacy CCS Modernization program with the approved conjunctive SWFTS fielding plan. This provides funding for one additional install and one additional procurement in FY19.</p> |                                       |             |                                               |                |                                          |                                                                                 |                                          |                                          |                                          |                                          |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   | Date: February 2018                                         |            |                   |                |            |                   |
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| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                |                |            |                   |                |            |                   | P-1 Line Item Number / Title:<br>2676 / Strategic Platform Support Equip |            |                   |                |            |                   | Aggregated Items Title:<br>Strategic Platform Support Equip |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018                                                                  |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                                 |            |                   | FY 2019 Total  |            |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                           | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                              | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) P1221 Strategic Platform Support Equip NPES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |
| 1.1) Common Platform Engineering <sup>(†)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | A     |                | 1,755K         | 5          | 8.776             | 938,000.00     | 1          | 0.938             | 939,000.00                                                               | 1          | 0.939             | 957,000.00     | 1          | 0.957             | -                                                           | -          | -                 | 957,000.00     | 1          | 0.957             |
| 1.2) CCS Revision Engineering Cert/Test <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A     |                | -              | -          | 14.141            | -              | -          | 2.307             | -                                                                        | -          | 2.402             | -              | -          | 2.311             | -                                                           | -          | -                 | -              | -          | 2.311             |
| 1.3) SSBN Legacy CCS Modernization <sup>(2)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A     |                | -              | -          | 14.766            | -              | -          | 5.727             | -                                                                        | -          | 3.548             | -              | -          | 6.199             | -                                                           | -          | -                 | -              | -          | 6.199             |
| Subtotal: 1) P1221 Strategic Platform Support Equip NPES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       |                | -              | -          | 37.683            | -              | -          | 8.972             | -                                                                        | -          | 6.889             | -              | -          | 9.467             | -                                                           | -          | -                 | -              | -          | 9.467             |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |                | -              | -          | 37.683            | -              | -          | 8.972             | -                                                                        | -          | 6.889             | -              | -          | 9.467             | -                                                           | -          | -                 | -              | -          | 9.467             |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |
| (†) indicates the presence of a P-5a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |
| Footnotes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |
| <sup>(1)</sup> CCS Revision Engineering Cert/Test: This funding is required for software upgrades to the SSBN Ship Control System to meet data stream (heading/speed/depth) redundancy requirements driven by the Non-Propulsion Electrical Systems (NPES) network architecture changes being fielded by SSBN modernization (Submarine Warfare Federated Tactical System (SWFTS) Technical Insertion (TI)-16/18 sonar/fire control modernization).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |
| <sup>(2)</sup> SSBN Legacy CCS Modernization: This program is critical to maintaining OHIO Class SSBN operational to the end of service life and delivery of COLUMBIA Class SSBN replacements. The program resolves Data Processing Subsystem (DPS) obsolescence issues and conjunctively supports the upgrade of the SSBN legacy CCS to the Submarine Warfare Federated Tactical Systems (SWFTS) architecture common with the SSN/SSGN classes. Collectively, the DPS and SWFTS upgrades modify Fire Control, SONAR, Voyage Management System (VMS), RADAR, Tactical Navigation, and Periscopes, and collaterally impact Ship Control, Monitoring Subsystem, and interfaces to ship sensors such as speed, depth, and Extremely High Frequency Satellite Communication navigation data. The DPS upgrade includes replacing all UYK-43 computers, DPS workstation, TRIDENT Signal Data Converters (TSDC), and the UGC-143 with a modified Electronic Control Display Unit (ECDU). The ECDU is common equipment on VA Class and planned for the COLUMBIA Class. The ECDU requires hardware and software development to interface to the Strategic Weapon System (SWS) Navigation and maintain critical Ship to SWS interface requirements. The ECDU and all the associated CCS architecture modifications are required to be installed conjunctively with SWFTS. Continued operation of the SSBN strategic mission will require the implementation of the ECDU upgrade along with the SWFTS upgrade. |       |                |                |            |                   |                |            |                   |                                                                          |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy             |         |      |                                                                          |                                      |                 |               |                              |               | Date: February 2018                                   |                        |                               |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 7 |         |      | P-1 Line Item Number / Title:<br>2676 / Strategic Platform Support Equip |                                      |                 |               |                              |               | Aggregated Items:<br>Strategic Platform Support Equip |                        |                               |                   |
| Item Number / Title [DODIC]                                              | OC<br>O | FY   | Contractor and Location                                                  | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                     | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1) P1221 Strategic Platform Support Equip NPES                           |         |      |                                                                          |                                      |                 |               |                              |               |                                                       |                        |                               |                   |
| 1.1) Common Platform Engineering                                         |         | 2016 | NUWC NPT / NEWPORT, RI                                                   | WR                                   | NAVSEA          | Apr 2016      | Aug 2016                     | 1             | 923,000.00                                            | Y                      |                               |                   |
| 1.1) Common Platform Engineering                                         |         | 2017 | NUWC NPT / NEWPORT, RI                                                   | WR                                   | NAVSEA          | Apr 2017      | Aug 2017                     | 1             | 938,000.00                                            | Y                      |                               |                   |
| 1.1) Common Platform Engineering                                         |         | 2018 | NUWC NPT / NEWPORT, RI                                                   | WR                                   | NAVSEA          | Apr 2018      | Aug 2018                     | 1             | 939,000.00                                            | Y                      |                               |                   |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                               |                    |                      |                                                                     |                                            |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                            |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                     | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                               |                    |                      |                                                                     |                                            |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                      | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                             | -                  | -                    | -                                                                   | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.000              | 68.392         | 71.882         | 70.849                                        | 0.000              | 70.849               | 72.548                                                              | 75.054                                     | 78.428         | 80.471                     | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                             | -                  | -                    | -                                                                   | -                                          | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.000              | 68.392         | 71.882         | 70.849                                        | 0.000              | 70.849               | 72.548                                                              | 75.054                                     | 78.428         | 80.471                     | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                             | -                  | -                    | -                                                                   | -                                          | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>0.000</b>       | <b>68.392</b>  | <b>71.882</b>  | <b>70.849</b>                                 | <b>0.000</b>       | <b>70.849</b>        | <b>72.548</b>                                                       | <b>75.054</b>                              | <b>78.428</b>  | <b>80.471</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                |                                               |                    |                      |                                                                     |                                            |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | 4.825          | 9.157          | 3.223                                         | -                  | 3.223                | 2.650                                                               | 2.733                                      | 2.870          | 2.094                      | Continuing         | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                             | -                  | -                    | -                                                                   | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                                   | -                                          | -              | -                          | -                  | -                 |
| <p><b>Description:</b><br/> <b>MATCALs</b><br/> Marine Air Traffic Control and Landing Systems (MATCALs) provides for continuous, all-weather, radar/non-radar approach, departure, enroute, and tower air traffic control services to aircraft. Marine ATC provides initial, transition and sustained air traffic support for the Joint and Marine Air Ground Task Force air operations in any environment. MATCALs satisfies the operational requirements set forth by Specific Operational Requirements 34-22 of 12 Jul 1973; Remote Landing Site Tower (RLST) Operational Requirements Document (ORD) 341-88-93 of 25 Jul 1997; and Air Traffic Navigation Integration and Coordination System ORD 05-002 of 03 Dec 1992. MATCALs, with other Marine Air Command and Control Systems (MACCS) and federal agencies, provides the ability to project air combat power without regard to weather. Air Traffic Control (ATC) automation reduces air traffic controllers' traffic handling and management time, allowing more time for mission response and task accomplishment. It supports a required increase in aircraft sortie rates and contributes to extended time on target. The system provides for integration of ATC into the total MACCS. To provide this capability, MATCALs consists of 6 primary subsystems: (1) Air Traffic Navigation Integration and Coordination system (ATNAVICS) AN/TPX-31(V); (2) Tactical Terminal Communication System (TTCS) AN/TSQ-263; (3) Expeditionary Control Tower AN/TSQ-120C; (4) RLST AN/TSQ-216; (5) Tactical Air Navigation (TACAN) AN/TRN-44; (6) the Man-Portable TACAN AN/TRN-47(V)1, and various ancillary equipment. The ATNAVICS Air Surveillance Radar (ASR) Range Extension is funded to meet requirements identified in the ATC Initial Capabilities Document ICD (ICD), MROC DM 75-7007, MACC Operational Advisory Group. The gaps identified require sustainment of legacy sensor capability until such time as ATNAVICS PrePlanned Product Improvement initiatives enhance system capability to support main air base traffic density and airspace. Additionally, the positive control enabled by increased ASR range reduces separation enabling increased sortie rates. This program works with the Marine ATC Working Group identifying the requirements to implement the P3I and evolutionary product improvements as required for G/ATOR system, ATNAVICS, Expeditionary ATC Towers, and Navigational Aids that support Marine Air Traffic Control Detachments. G/ATOR is multi-role, ground-based, expeditionary radar that replaces five legacy radar systems for the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System and the Ground Counter Fire/ Counter Battery capabilities.</p> <p><b>NASMOD</b><br/> The Joint DoD/Federal Aviation Administration (FAA) National Airspace System (NAS) Modernization (MOD) program upgrades the DoD ATC systems at approach control facilities in concert with the FAA's upgrade of the National ATC System. These funds will procure ATC systems for the Navy/Marine ATC facilities. The Air Force is the DoD lead activity for the Joint Acquisition Program. The Joint Program Office is located at Hanscom AFB, MA. The NAS Mod program received a full rate production decision on 7 June 2005 and is in the production and deployment phase following Milestone C.</p> <p><b>FLEET ATC SYSTEMS</b></p> |                    |                |                |                                               |                    |                      |                                                                     |                                            |                |                            |                    |                   |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                        | Date: February 2018                                          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |                                                              |
| <p>NAVAIR provides shore based ATC terminal facilities with equipment that is required in joint efforts to efficiently and safely monitor and direct military and commercial air traffic in national and international air space. Many of these systems are required to interface through automated means with the FAA. Additionally, NAVAIR has material support responsibility for Special Instrumentation Systems, and Ancillary Equipment used at Navy and Marine Corps Aviation Shore activities in the continental United States and overseas.</p> <p>Engineering Change Proposal (ECP)/Operational Capability Improvement Request (OCIR) modernization (MR069) - The ECP/OCIR program provides for the procurement and/or modification of critically needed communications, radar, displays, data processors, and other electronic systems/equipment at Navy/Marine Corps ATC facilities worldwide. ECP/OCIR procurements replace and modernize costly-to-maintain systems and equipment in order to increase ATC efficiency and safety, and reduce total ownership costs.</p> <p>UHF/VHF Antenna Upgrade (MR404) - This program procures and installs antenna, antenna towers, and antenna cables</p> <p>Communications Systems Upgrade Program (MR408) - This program procures and installs advanced commercial state-of-the-art ATC voice switching equipment.</p> <p>UHF/VHF Transceiver Replacement Program (MR440) - This program modernizes aging Navy and Marine Corps UHF/VHF Transceivers that are the central core of all ATC emergency and Fleet Area Control &amp; Surveillance Facility (FACSFAC) communications.</p> <p>Emergency Communication System (ECS) Upgrade Program (MR445) - This program modernizes obsolete and unsupportable ECS equipment. Voice Switches, Recorders, Reproducers, Uninterruptable Power Supplies, and Built-In Test Equipment will be replaced with modern, supportable components.</p> <p>Air Field Lighting Control System (AFLCS) (MR510) - This program modernizes obsolete and unsupportable AFLCS equipment which will be replaced with modern, supportable components. Funding for this effort was realigned to the Terminal Automation System (TAS) CB070 beginning in FY18. The TAS provides the functionality and meets the requirements of the airfield lighting control as prescribed in the NASMOD ORD III Airfield Automation Annex A dated 16MAR05.</p> <p>Operational Communication System (OCS)/Emergency Communication System (ECS) Air Traffic Control (ATC) Recorder replacement program (MR520), through participation in the FAA ATC recorder replacement program will replace aging and obsolete ATC OCS and ECS ATC recorders with state of the art ATC recording/reproducing technology.</p> <p>Fiber Optic Communications Intersite System (FOCIS) Upgrade Program (MR530) - FOCIS is required for Precision Approach Radar (PAR) operations and for ATC voice communications at Naval and Marine Corps ATC facilities. This program modernizes obsolete and unsupportable FOCIS equipment with modern supportable components.</p> <p>LANDING SYSTEMS</p> <p>Landing Systems budget provides funding to modernize and ensure the reliability of Precision Approach Radars (PAR), Tactical Air Navigation (TACAN) systems, Instrument Landing Systems (ILS), and other air navigation aids used by the Navy and Marine Corps.</p> <p>PAR Commercial-off-the-shelf (AN/FPN-68A) Upgrade replaces obsolete PAR systems (AN/FPN-63) continuing fleet shore based Precision Approach capability. Additionally PAR (AN/FPN-63) ECPs are required to sustain the existing systems until replacement. Those ECPs include but are not limited to the Modulator Board Upgrade, the Antenna Upgrade, the Configuration Upgrade, the Turntable Upgrade, the Fiber Optic Inter-site System (FOIS), and the Angle Voltage Generator (AVG) Upgrade.</p> <p>TACAN Ship/Shore Upgrade ECPs update old technology and extend the service life of the TACAN. The TACAN sustainment consists of the Antenna Upgrade ECP for the OE-273 antenna (nomenclature for the new antenna TBD) and the Beacon/RSCU Upgrade ECP of the AN/URN-25 which will make the upgraded Beacon an AN/URN-32.</p> <p>Instrument Landing Systems (nomenclature TBD) will provide the Navy and Marine Corps with a self-contained Precision Landing capability at selected Air Stations, to meet fleet requirements for safe aircraft recovery of aircraft equipped with ILS capability.</p> |                                        |                                                              |



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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                  |                                                                                     |             |                                        |                |                                                              |                                          | Date: February 2018                      |                                          |                                          |                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------|----------------------------------------|----------------|--------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment |                                                                                     |             |                                        |                | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                          |                                          |                                          |                                          |                                          |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                           |                                                                                     |             | Program Elements for Code B Items: N/A |                |                                                              | Other Related Program Elements: N/A      |                                          |                                          |                                          |                                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                               |                                                                                     |             |                                        |                |                                                              |                                          |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                           |                                                                                     |             |                                        |                | Prior Years                                                  | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                | Title*                                                                              | Subexhibits | ID CD                                  | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M)                     | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                         | 1 / MATCALs                                                                         |             |                                        |                | - / 0.000                                                    | - / 2.332                                | - / 2.740                                | - / 3.023                                | - / 0.000                                | - / 3.023                                |
| P-5                                                                                                                                                                         | 2 / Fleet Air Traffic Control Systems                                               |             |                                        |                | - / 0.000                                                    | - / 8.292                                | - / 6.933                                | - / 7.709                                | - / 0.000                                | - / 7.709                                |
| P-5                                                                                                                                                                         | 3 / Landing Systems                                                                 |             |                                        |                | - / 0.000                                                    | - / 0.351                                | - / 4.114                                | - / 4.297                                | - / 0.000                                | - / 4.297                                |
| P-3a                                                                                                                                                                        | 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) (Modification)                  |             |                                        |                | - / 0.000                                                    | - / 4.069                                | - / 2.426                                | - / 2.397                                | - / 0.000                                | - / 2.397                                |
| P-3a                                                                                                                                                                        | 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) (Added Capability) |             |                                        |                | - / 0.000                                                    | - / 1.687                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a                                                                                                                                                                        | 3 / MJ465 AMTAC (Modification)                                                      |             |                                        |                | - / 0.000                                                    | - / 7.356                                | - / 4.400                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a                                                                                                                                                                        | 4 / CB010 - DoD Advanced Automation System (DAAS) (Added Capability)                |             |                                        |                | - / 0.000                                                    | - / 4.841                                | - / 4.082                                | - / 2.680                                | - / 0.000                                | - / 2.680                                |
| P-3a                                                                                                                                                                        | 5 / CB030 Digital Airport Surveillance Radar (DASR) (Added Capability)              |             |                                        |                | - / 0.000                                                    | - / 0.400                                | - / 0.400                                | - / 0.939                                | - / 0.000                                | - / 0.939                                |
| P-3a                                                                                                                                                                        | 6 / CB040 Tower Automation System (TAS) (Added Capability)                          |             |                                        |                | - / 0.000                                                    | - / 0.200                                | - / 0.200                                | - / 1.682                                | - / 0.000                                | - / 1.682                                |
| P-3a                                                                                                                                                                        | 7 / CB050 STARS TECH Refresh Upgrade (AIT)                                          |             |                                        |                | - / 0.000                                                    | - / 11.360                               | - / 14.262                               | - / 11.539                               | - / 0.000                                | - / 11.539                               |
| P-3a                                                                                                                                                                        | 8 / CB070 TAS Tech Refresh (Added Capability)                                       |             |                                        |                | - / 0.000                                                    | - / 4.055                                | - / 2.517                                | - / 4.158                                | - / 0.000                                | - / 4.158                                |
| P-3a                                                                                                                                                                        | 9 / CB080 NAS Voice System (NVS) (Added Capability)                                 |             |                                        |                | - / 0.000                                                    | - / 6.350                                | - / 7.508                                | - / 6.589                                | - / 0.000                                | - / 6.589                                |
| P-3a                                                                                                                                                                        | 10 / CB090 - DAAS Tech Refresh Upgrade II (TBD)                                     |             |                                        |                | - / 0.000                                                    | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a                                                                                                                                                                        | 11 / CB100 TAS Tech Refresh Upgrade II (TBD)                                        |             |                                        |                | - / 0.000                                                    | - / 0.000                                | - / 0.000                                | - / 0.400                                | - / 0.000                                | - / 0.400                                |
| P-3a                                                                                                                                                                        | 12 / X1036 AN/FPN-63 PAR TECH REFRESH (Reliability)                                 |             |                                        |                | - / 0.000                                                    | - / 9.847                                | - / 8.471                                | - / 9.422                                | - / 0.000                                | - / 9.422                                |
| P-3a                                                                                                                                                                        | 13 / X1037 ILS Upgrade (TBD)                                                        |             |                                        |                | - / 0.000                                                    | - / 1.901                                | - / 4.752                                | - / 6.438                                | - / 0.000                                | - / 6.438                                |
| P-3a                                                                                                                                                                        | 14 / X1043 TACAN Antenna Upgrade (Modernization)                                    |             |                                        |                | - / 0.000                                                    | - / 5.351                                | - / 9.077                                | - / 9.576                                | - / 0.000                                | - / 9.576                                |
| P-40                                                                                                                                                                        | Total Gross/Weapon System Cost                                                      |             |                                        |                | - / 0.000                                                    | - / 68.392                               | - / 71.882                               | - / 70.849                               | - / 0.000                                | - / 70.849                               |
| Exhibits Schedule                                                                                                                                                           |                                                                                     |             |                                        |                | FY 2020                                                      | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
| Exhibit Type                                                                                                                                                                | Title*                                                                              | Subexhibits | ID CD                                  | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M)                     | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                         | 1 / MATCALs                                                                         |             |                                        |                | - / -                                                        | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-5                                                                                                                                                                         | 2 / Fleet Air Traffic Control Systems                                               |             |                                        |                | - / -                                                        | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-5                                                                                                                                                                         | 3 / Landing Systems                                                                 |             |                                        |                | - / -                                                        | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a                                                                                                                                                                        | 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) (Modification)                  |             |                                        |                | - / 0.000                                                    | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 8.892                                |
| P-3a                                                                                                                                                                        | 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) (Added Capability) |             |                                        |                | - / 0.000                                                    | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 1.687                                |
| P-3a                                                                                                                                                                        | 3 / MJ465 AMTAC (Modification)                                                      |             |                                        |                | - / 0.000                                                    | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 20.283                               | - / 32.039                               |
| P-3a                                                                                                                                                                        | 4 / CB010 - DoD Advanced Automation System (DAAS) (Added Capability)                |             |                                        |                | - / 0.822                                                    | - / 0.227                                | - / 0.234                                | - / 0.329                                | Continuing                               | Continuing                               |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                        |             |       |                                        |                                                              |                                          |                                          | Date: February 2018                      |                                          |                                          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                        |             |       |                                        | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                          |                                          |                                          |                                          |                                          |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                        |             |       | Program Elements for Code B Items: N/A |                                                              |                                          |                                          | Other Related Program Elements: N/A      |                                          |                                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                        |             |       |                                        |                                                              |                                          |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                        |             |       |                                        | FY 2020                                                      | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Title*                                                                 | Subexhibits | ID CD | MDAP/MAIS Code                         | Quantity / Total Cost<br>(Each) / (\$ M)                     | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5 / CB030 Digital Airport Surveillance Radar (DASR) (Added Capability) |             |       |                                        | - / 0.915                                                    | - / 0.220                                | - / 0.256                                | - / 0.351                                | - / 0.000                                | - / 3.481                                |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6 / CB040 Tower Automation System (TAS) (Added Capability)             |             |       |                                        | - / 0.536                                                    | - / 0.400                                | - / 0.429                                | - / 0.437                                | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7 / CB050 STARS TECH Refresh Upgrade (AIT)                             |             |       |                                        | - / 2.682                                                    | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 39.843                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 8 / CB070 TAS Tech Refresh (Added Capability)                          |             |       |                                        | - / 4.716                                                    | - / 1.667                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 17.113                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9 / CB080 NAS Voice System (NVS) (Added Capability)                    |             |       |                                        | - / 14.431                                                   | - / 23.326                               | - / 22.661                               | - / 16.121                               | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10 / CB090 - DAAS Tech Refresh Upgrade II (TBD)                        |             |       |                                        | - / 0.000                                                    | - / 0.552                                | - / 3.440                                | - / 9.054                                | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 11 / CB100 TAS Tech Refresh Upgrade II (TBD)                           |             |       |                                        | - / 2.197                                                    | - / 2.780                                | - / 2.815                                | - / 2.856                                | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 12 / X1036 AN/FPN-63 PAR TECH REFRESH (Reliability)                    |             |       |                                        | - / 10.042                                                   | - / 10.154                               | - / 9.618                                | - / 9.709                                | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 13 / X1037 ILS Upgrade (TBD)                                           |             |       |                                        | - / 6.492                                                    | - / 6.421                                | - / 8.981                                | - / 9.508                                | Continuing                               | Continuing                               |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 14 / X1043 TACAN Antenna Upgrade (Modernization)                       |             |       |                                        | - / 9.622                                                    | - / 10.011                               | - / 9.477                                | - / 9.633                                | Continuing                               | Continuing                               |
| P-40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Total Gross/Weapon System Cost                                         |             |       |                                        | - / 72.548                                                   | - / 75.054                               | - / 78.428                               | - / 80.471                               | Continuing                               | Continuing                               |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                        |             |       |                                        |                                                              |                                          |                                          |                                          |                                          |                                          |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        |             |       |                                        |                                                              |                                          |                                          |                                          |                                          |                                          |
| Justification:<br>MATCALs<br>FY2019 provides funding to procure Maintainability/Reliability Improvements and 1 ATNAVICS Range Extension.<br><br>NASMOD<br>The Federal Aviation Administration (FAA) began the Next Generation Air Transportation System initiative in FY2008. A major component of this capability is Automatic Dependent Surveillance Broadcast, which will provide aircraft position information to augment ground-based radar. Existing DoD Air Traffic Control (ATC) facilities interface with FAA's facilities, therefore the military must maintain interoperability and retain vital special-use airspace for combat readiness training. The DoD Advanced Automation System (DAAS) must be upgraded to meet this requirement.<br>FY2019 provides funding to procure 6 STARS Tech Refresh Upgrades, 18 TAS Tech Refresh, 497 NAS Voice System Radios, various Engineering Change Proposals (ECPs) and associated Support<br><br>FLEET ATC SYSTEMS<br>The basis for the FY2019 budget request is to continue modernizing aging Navy and Marine Corps ATC facilities and equipment in order to safely monitor and direct military and commercial air traffic in national and international air space. This equipment must continue to interface through automated means with the FAA.<br>FY2019 provides funding to procure 2 UHF/VHF Antenna Upgrades, 5 ECS Upgrades, 13 OCS/ECS ATC Recorder upgrades, various ECPs/OCIRs and associated support.<br><br>LANDING SYSTEMS<br>FY2019 provides funding to procure: 3 PAR Tech Refresh COTs, 2 ILS Upgrades, 24 TACAN Antenna Upgrades, and 14 TACAN Beacon Upgrades. |                                                                        |             |       |                                        |                                                              |                                          |                                          |                                          |                                          |                                          |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                        |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               | Date: February 2018                         |                   |               |                      |                   |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                                        |                   |               |                      |                   |               | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                   |               |                      |                   |               | Item Number / Title [DODIC]:<br>1 / MATCALs |                   |               |                      |                   |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                |                   |               |                      |                   |               |                                                              |                   |               |                      | MDAP/MAIS Code:   |               |                                             |                   |               |                      |                   |               |                      |
| Resource Summary                                                                                                                                |                   |               |                      | Prior Years       |               | FY 2017                                                      |                   | FY 2018       |                      | FY 2019 Base      |               | FY 2019 OCO                                 |                   | FY 2019 Total |                      |                   |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                     |                   |               |                      | -                 |               | -                                                            |                   | -             |                      | -                 |               | -                                           |                   |               |                      |                   |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                |                   |               |                      | 0.000             |               | 2.332                                                        |                   | 2.740         |                      | 3.023             |               | 0.000                                       |                   | 3.023         |                      |                   |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                             |                   |               |                      | -                 |               | -                                                            |                   | -             |                      | -                 |               | -                                           |                   | -             |                      |                   |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                   |                   |               |                      | 0.000             |               | 2.332                                                        |                   | 2.740         |                      | 3.023             |               | 0.000                                       |                   | 3.023         |                      |                   |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                             |                   |               |                      | -                 |               | -                                                            |                   | -             |                      | -                 |               | -                                           |                   | -             |                      |                   |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                              |                   |               |                      | 0.000             |               | 2.332                                                        |                   | 2.740         |                      | 3.023             |               | 0.000                                       |                   | 3.023         |                      |                   |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)          |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                          |                   |               |                      | -                 |               | -                                                            |                   | -             |                      | -                 |               | -                                           |                   | -             |                      |                   |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                            |                   |               |                      | -                 |               | -                                                            |                   | -             |                      | -                 |               | -                                           |                   | -             |                      |                   |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                  |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| Cost Elements                                                                                                                                   | Prior Years       |               |                      | FY 2017           |               |                                                              | FY 2018           |               |                      | FY 2019 Base      |               |                                             | FY 2019 OCO       |               |                      | FY 2019 Total     |               |                      |
|                                                                                                                                                 | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                         | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                        | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - ECP / ECO Cost                                                                                                                       |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| Recurring Cost                                                                                                                                  |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| 1.1.1) MAINT / RELIABILITY IMPROVEMENT (MJ427) <sup>(1)</sup>                                                                                   | -                 | -             | 0.000                | -                 | -             | 2.234                                                        | -                 | -             | 2.216                | -                 | -             | 2.421                                       | -                 | -             | 0.000                | -                 | -             | 2.421                |
| Subtotal: Recurring Cost                                                                                                                        | -                 | -             | 0.000                | -                 | -             | 2.234                                                        | -                 | -             | 2.216                | -                 | -             | 2.421                                       | -                 | -             | 0.000                | -                 | -             | 2.421                |
| Subtotal: Hardware - ECP / ECO Cost                                                                                                             | -                 | -             | 0.000                | -                 | -             | 2.234                                                        | -                 | -             | 2.216                | -                 | -             | 2.421                                       | -                 | -             | 0.000                | -                 | -             | 2.421                |
| Support - MISCELLANEOUS SUPPORT Cost                                                                                                            |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| 5.2) Install (MJ900) <sup>(2)</sup>                                                                                                             | -                 | -             | 0.000                | -                 | -             | 0.098                                                        | -                 | -             | 0.524                | -                 | -             | 0.602                                       | -                 | -             | 0.000                | -                 | -             | 0.602                |
| Subtotal: Support - MISCELLANEOUS SUPPORT Cost                                                                                                  | -                 | -             | 0.000                | -                 | -             | 0.098                                                        | -                 | -             | 0.524                | -                 | -             | 0.602                                       | -                 | -             | 0.000                | -                 | -             | 0.602                |
| Gross/Weapon System Cost                                                                                                                        | -                 | -             | 0.000                | -                 | -             | 2.332                                                        | -                 | -             | 2.740                | -                 | -             | 3.023                                       | -                 | -             | 0.000                | -                 | -             | 3.023                |
| Footnotes:                                                                                                                                      |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| <sup>(1)</sup> The FY19 MRI ECP increase is due to reduced reliability requiring higher ECP costs to maintain reliability in the older systems. |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |
| <sup>(2)</sup> The FY19 install cost increase is due to overseas travel and increased complexity in the install work.                           |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                             |                   |               |                      |                   |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      | Date: February 2018                                                   |               |                      |                   |               |                      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------|--------------------------------------------------------------|---------------|----------------------|-------------------|---------------|----------------------|-----------------------------------------------------------------------|---------------|----------------------|-------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                               |                   |               |                      |                   |               |                      | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |               |                      |                   |               |                      | Item Number / Title [DODIC]:<br>2 / Fleet Air Traffic Control Systems |               |                      |                   |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                   |               |                      |                   |               |                      |                                                              |               |                      | MDAP/MAIS Code:   |               |                      |                                                                       |               |                      |                   |               |                      |
| Resource Summary                                                                                                                       |                   |               |                      | Prior Years       |               | FY 2017              |                                                              | FY 2018       |                      | FY 2019 Base      |               | FY 2019 OCO          |                                                                       | FY 2019 Total |                      |                   |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                   |               |                      | -                 |               | -                    |                                                              | -             |                      | -                 |               | -                    |                                                                       | -             |                      |                   |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                   |               |                      | 0.000             |               | 8.292                |                                                              | 6.933         |                      | 7.709             |               | 0.000                |                                                                       | 7.709         |                      |                   |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                   |               |                      | -                 |               | -                    |                                                              | -             |                      | -                 |               | -                    |                                                                       | -             |                      |                   |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                   |               |                      | 0.000             |               | 8.292                |                                                              | 6.933         |                      | 7.709             |               | 0.000                |                                                                       | 7.709         |                      |                   |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                   |               |                      | -                 |               | -                    |                                                              | -             |                      | -                 |               | -                    |                                                                       | -             |                      |                   |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                   |               |                      | 0.000             |               | 8.292                |                                                              | 6.933         |                      | 7.709             |               | 0.000                |                                                                       | 7.709         |                      |                   |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                                       |               |                      |                   |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                   |               |                      | -                 |               | -                    |                                                              | -             |                      | -                 |               | -                    |                                                                       | -             |                      |                   |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                   |                   |               |                      | -                 |               | -                    |                                                              | -             |                      | -                 |               | -                    |                                                                       | -             |                      |                   |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                                       |               |                      |                   |               |                      |
| Cost Elements                                                                                                                          | Prior Years       |               |                      | FY 2017           |               |                      | FY 2018                                                      |               |                      | FY 2019 Base      |               |                      | FY 2019 OCO                                                           |               |                      | FY 2019 Total     |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$)                                            | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$)                                                     | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - Fleet ATC - Hardware Cost                                                                                                   |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                                       |               |                      |                   |               |                      |
| Recurring Cost                                                                                                                         |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                                       |               |                      |                   |               |                      |
| 1.1.1) MR069 ECP/OCIR <sup>(3)</sup>                                                                                                   | -                 | -             | 0.000                | 75,000.00         | 1             | 0.075                | 465,000.00                                                   | 1             | 0.465                | 121,000.00        | 3             | 0.363                | -                                                                     | -             | 0.000                | 121,000.00        | 3             | 0.363                |
| 1.1.2) MR404 UHF/VHF Antenna Upgrade <sup>(4)</sup>                                                                                    | -                 | -             | 0.000                | -                 | -             | 0.000                | -                                                            | -             | 0.000                | 750,000.00        | 2             | 1.500                | -                                                                     | -             | 0.000                | 750,000.00        | 2             | 1.500                |
| 1.1.3) MR408 COMM System Upgrade                                                                                                       | -                 | -             | 0.000                | 500,000.00        | 2             | 1.000                | -                                                            | -             | 0.000                | -                 | -             | 0.000                | -                                                                     | -             | 0.000                | -                 | -             | 0.000                |
| 1.1.4) MR440 UHF/VHF Transceiver Replacement <sup>(5)</sup>                                                                            | -                 | -             | 0.000                | 43,700.00         | 60            | 2.622                | 45,000.00                                                    | 21            | 0.945                | -                 | -             | 0.000                | -                                                                     | -             | 0.000                | -                 | -             | 0.000                |
| 1.1.5) MR445 Emergency Communication System (ECS) Upgrade <sup>(6)</sup>                                                               | -                 | -             | 0.000                | 431,200.00        | 5             | 2.156                | 460,000.00                                                   | 5             | 2.300                | 469,000.00        | 5             | 2.345                | -                                                                     | -             | 0.000                | 469,000.00        | 5             | 2.345                |
| 1.1.7) MR520 OCS/ECS ATC Recorder Upgrade <sup>(7)</sup>                                                                               | -                 | -             | 0.000                | -                 | -             | 0.000                | 50,000.00                                                    | 3             | 0.150                | 50,923.00         | 13            | 0.662                | -                                                                     | -             | 0.000                | 50,923.00         | 13            | 0.662                |
| Subtotal: Recurring Cost                                                                                                               | -                 | -             | 0.000                | -                 | -             | 5.853                | -                                                            | -             | 3.860                | -                 | -             | 4.870                | -                                                                     | -             | 0.000                | -                 | -             | 4.870                |
| Subtotal: Hardware - Fleet ATC - Hardware Cost                                                                                         | -                 | -             | 0.000                | -                 | -             | 5.853                | -                                                            | -             | 3.860                | -                 | -             | 4.870                | -                                                                     | -             | 0.000                | -                 | -             | 4.870                |
| Support - Other Cost                                                                                                                   |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                                       |               |                      |                   |               |                      |
|                                                                                                                                        |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                                       |               |                      |                   |               |                      |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|--------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|-----------------------------------------------------------------------|-------------------|---------------|----------------------|-------------------|---------------|----------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               | Date: February 2018                                                   |                   |               |                      |                   |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |               |                      |                   |               | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                   |               |                      |                   |               | Item Number / Title [DODIC]:<br>2 / Fleet Air Traffic Control Systems |                   |               |                      |                   |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |               |                      |                   |               |                                                              |                   |               | MDAP/MAIS Code:      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| Cost Elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Prior Years       |               |                      | FY 2017           |               |                                                              | FY 2018           |               |                      | FY 2019 Base      |               |                                                                       | FY 2019 OCO       |               |                      | FY 2019 Total     |               |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                         | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                  | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 2.1) Fleet ATC Integrated Logistics Support (MR800)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                 | -             | 0.000                | -                 | -             | 0.180                                                        | -                 | -             | 0.183                | -                 | -             | 0.254                                                                 | -                 | -             | 0.000                | -                 | -             | 0.254                |
| 2.2) Fleet ATC Production Engineering (MR830)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                 | -             | 0.000                | -                 | -             | 0.346                                                        | -                 | -             | 0.588                | -                 | -             | 0.778                                                                 | -                 | -             | 0.000                | -                 | -             | 0.778                |
| 2.3) Fleet ATC Installs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                 | -             | 0.000                | -                 | -             | 1.913                                                        | -                 | -             | 2.302                | -                 | -             | 1.807                                                                 | -                 | -             | 0.000                | -                 | -             | 1.807                |
| Subtotal: Support - Other Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                 | -             | 0.000                | -                 | -             | 2.439                                                        | -                 | -             | 3.073                | -                 | -             | 2.839                                                                 | -                 | -             | 0.000                | -                 | -             | 2.839                |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                 | -             | 0.000                | -                 | -             | 8.292                                                        | -                 | -             | 6.933                | -                 | -             | 7.709                                                                 | -                 | -             | 0.000                | -                 | -             | 7.709                |
| Footnotes:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| (3) MR069: This program provides for the procurement and or modification of critically needed communications, radar, displays, data processors and other electronic systems / equipment at Navy / Marine Corps Air Traffic Control facilities worldwide. Due to the variety of the Air Traffic Control systems involved and the scope of these validated requirements, costs can vary significantly between fiscal years. The unit cost for an individual OCIR can range from \$1,500 to \$500,000 so the unit cost is and average of all OCIRs procured in that year and as such will fluctuate from year to year.                                                                  |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| (4) MR404: UHF/VHF Antenna Upgrade - UHF/VHF antennas enable ground to air communications between air traffic controllers and aircraft pilots. New antenna and antenna cables are required to replace existing aged and deteriorated antennas and cables. For dependable ground to air communications, replacement of the antennas and cables is imperative. Inventory objective is 76.                                                                                                                                                                                                                                                                                              |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| (5) MR440: Inventory objective is 330.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| (6) MR445: Inventory objective is 45.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |
| (7) MR520: The Operational Communication System (OCS) and Emergency Communication System (ECS) Air Traffic Control (ATC) recorder upgrade through participation in the Federal Aviation Administration (FAA) ATC recorder replacement program will replace aging and obsolete ATC OCS and ECS ATC recorders with state of the art ATC recording/reproducing technology. FY2019 represents a new FAA recorder. The size of the recorders will vary significantly. The ECS recorder will have 10 channels and the OCS recorders will vary between 32 and 260 channels. FY18 to FY19 increase is due to a Ramp-up of the installation team to consistently replace 13 systems per year. |                   |               |                      |                   |               |                                                              |                   |               |                      |                   |               |                                                                       |                   |               |                      |                   |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               | Date: February 2018  |                                                     |               |                      |                   |               |                      |               |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                               |                   |               |                      |                   |               |                      | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |               |                      |                   |               |                      | Item Number / Title [DODIC]:<br>3 / Landing Systems |               |                      |                   |               |                      |               |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                   |               |                      |                   |               |                      |                                                              |               |                      | MDAP/MAIS Code:   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| Resource Summary                                                                                                                       |                   |               |                      | Prior Years       |               |                      | FY 2017                                                      |               |                      | FY 2018           |               |                      | FY 2019 Base                                        |               |                      | FY 2019 OCO       |               |                      | FY 2019 Total |  |  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                   |               |                      | -                 |               |                      | -                                                            |               |                      | -                 |               |                      | -                                                   |               |                      | -                 |               |                      | -             |  |  |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                   |               |                      | 0.000             |               |                      | 0.351                                                        |               |                      | 4.114             |               |                      | 4.297                                               |               |                      | 0.000             |               |                      | 4.297         |  |  |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                   |               |                      | -                 |               |                      | -                                                            |               |                      | -                 |               |                      | -                                                   |               |                      | -                 |               |                      | -             |  |  |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                   |               |                      | 0.000             |               |                      | 0.351                                                        |               |                      | 4.114             |               |                      | 4.297                                               |               |                      | 0.000             |               |                      | 4.297         |  |  |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                   |               |                      | -                 |               |                      | -                                                            |               |                      | -                 |               |                      | -                                                   |               |                      | -                 |               |                      | -             |  |  |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                   |               |                      | 0.000             |               |                      | 0.351                                                        |               |                      | 4.114             |               |                      | 4.297                                               |               |                      | 0.000             |               |                      | 4.297         |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                   |               |                      | -                 |               |                      | -                                                            |               |                      | -                 |               |                      | -                                                   |               |                      | -                 |               |                      | -             |  |  |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                   |                   |               |                      | -                 |               |                      | -                                                            |               |                      | -                 |               |                      | -                                                   |               |                      | -                 |               |                      | -             |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| Cost Elements                                                                                                                          | Prior Years       |               |                      | FY 2017           |               |                      | FY 2018                                                      |               |                      | FY 2019 Base      |               |                      | FY 2019 OCO                                         |               |                      | FY 2019 Total     |               |                      |               |  |  |
|                                                                                                                                        | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$)                                            | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$)                                   | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |               |  |  |
| Hardware - Landing Systems - TACAN Beacon Cost                                                                                         |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| Recurring Cost                                                                                                                         |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| 1.1.1) X1042 - TACAN BEACON UPGRADE <sup>(8)</sup>                                                                                     | -                 | -             | 0.000                | -                 | -             | 0.000                | 217,000.00                                                   | 14            | 3.038                | 220,857.00        | 14            | 3.092                | -                                                   | -             | 0.000                | 220,857.00        | 14            | 3.092                |               |  |  |
| Subtotal: Recurring Cost                                                                                                               | -                 | -             | 0.000                | -                 | -             | 0.000                | -                                                            | -             | 3.038                | -                 | -             | 3.092                | -                                                   | -             | 0.000                | -                 | -             | 3.092                |               |  |  |
| Subtotal: Hardware - Landing Systems - TACAN Beacon Cost                                                                               | -                 | -             | 0.000                | -                 | -             | 0.000                | -                                                            | -             | 3.038                | -                 | -             | 3.092                | -                                                   | -             | 0.000                | -                 | -             | 3.092                |               |  |  |
| Support - Other Cost                                                                                                                   |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| 2.1) X1800 - Landing Systems Integrated Logistics Support                                                                              | -                 | -             | 0.000                | -                 | -             | 0.000                | -                                                            | -             | 0.033                | -                 | -             | 0.033                | -                                                   | -             | 0.000                | -                 | -             | 0.033                |               |  |  |
| 2.2) X1830 - Landing Systems Production Engineering                                                                                    | -                 | -             | 0.000                | -                 | -             | 0.000                | -                                                            | -             | 0.419                | -                 | -             | 0.418                | -                                                   | -             | 0.000                | -                 | -             | 0.418                |               |  |  |
| 2.4) X1900 - Landing System Installs <sup>(9)</sup>                                                                                    | -                 | -             | 0.000                | -                 | -             | 0.351                | -                                                            | -             | 0.624                | -                 | -             | 0.754                | -                                                   | -             | 0.000                | -                 | -             | 0.754                |               |  |  |
| Subtotal: Support - Other Cost                                                                                                         | -                 | -             | 0.000                | -                 | -             | 0.351                | -                                                            | -             | 1.076                | -                 | -             | 1.205                | -                                                   | -             | 0.000                | -                 | -             | 1.205                |               |  |  |
| Gross/Weapon System Cost                                                                                                               | -                 | -             | 0.000                | -                 | -             | 0.351                | -                                                            | -             | 4.114                | -                 | -             | 4.297                | -                                                   | -             | 0.000                | -                 | -             | 4.297                |               |  |  |
| Footnotes:                                                                                                                             |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |
| <sup>(8)</sup> X1042: Inventory objective is 206.                                                                                      |                   |               |                      |                   |               |                      |                                                              |               |                      |                   |               |                      |                                                     |               |                      |                   |               |                      |               |  |  |

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| <b>Exhibit P-5, Cost Analysis: PB 2019 Navy</b>                                                                                                    |                                                                     | <b>Date:</b> February 2018                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                    | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment | <b>Item Number / Title [DODIC]:</b><br>3 / Landing Systems |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                            |                                                                     | <b>MDAP/MAIS Code:</b>                                     |
| <sup>(9)</sup> The FY19 increase is due to TACAN Beacon installs at OCONUS which have higher costs, requiring additional travel and Shipyard cost. |                                                                     |                                                            |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|---------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|--------------------------------------------------------------------------------------------|--------------------|--------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                     |                                                                     |                      |                        |                |                | <b>Date:</b> February 2018                                                                 |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                     |                                                                     |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                            |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                             | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.000              | 4.069          | 2.426          | 2.397               | 0.000                                                               | 2.397                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                      | 0.000              | 8.892        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 4.069          | 2.426          | 2.397               | 0.000                                                               | 2.397                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                      | 0.000              | 8.892        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>0.000</b>       | <b>4.069</b>   | <b>2.426</b>   | <b>2.397</b>        | <b>0.000</b>                                                        | <b>2.397</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                               | <b>0.000</b>       | <b>8.892</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                            |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| <p><b>Description:</b></p> <p>The Air Traffic Navigation Integration and Coordination System (ATNAVICS) Air Surveillance Radar (ASR) Range Extension is funded to meet requirements identified in the Air Traffic Control (ATC) Initial Capabilities Document, Marine Requirements Oversight Committee Decision Memorandum 75-7007, Marine Aviation Command and Control Operational Advisory Group and Headquarters Marine Corps APX-25 Requirement Clarification letter dated 05 Jan 2010. The gaps identified require sustainment of legacy sensor capability until such time as ATNAVICS PrePlanned Product Improvement initiatives enhance system capability to support main air base traffic density and airspace. Additionally, the positive control enabled by increased ASR range reduces separation enabling increased sortie rates. The End Item Kits for the ATNAVICS ASR Range Extension that are being procured consist of: ASR transmitter, environmental control unit/power generator, Radio Frequency transmission line, ASR receiver/exciter and signal data processors and required software code modifications to system Lowest Repairable Units.</p> <p>Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2815.</p> |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                            |                    |              |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                 |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9  |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                            |                                |                                |  |
| <b>Models of Systems Affected:</b> MATCALs                                       |                                |                                |                                | <b>Modification Type:</b> Modification                              |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604504N |                                |                                                                                            |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                             | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| <i>Modification Item 1 of 1:</i> AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| Non-Recurring                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| 1.1.1) EQUIPMENT - NonOrganic <sup>(10)</sup>                                    | - / -                          | 2 / 2.400                      | 1 / 1.224                      | 1 / 1.200                                                           | - / -                          | 1 / 1.200                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                      | - / -                          | 4 / 4.824                      |  |
| <i>Subtotal: Non-Recurring</i>                                                   | - / 0.000                      | - / 2.400                      | - / 1.224                      | - / 1.200                                                           | - / -                          | - / 1.200                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                      | - / 0.000                      | - / 4.824                      |  |
| <i>Subtotal: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>                 | - / -                          | 2 / 2.400                      | 1 / 1.224                      | 1 / 1.200                                                           | - / -                          | 1 / 1.200                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                      | - / -                          | 4 / 4.824                      |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 0.000                      | - / 2.400                      | - / 1.224                      | - / 1.200                                                           | - / -                          | - / 1.200                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                      | - / 0.000                      | - / 4.824                      |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| 2.1) Integrated Logistics Support                                                | - / 0.000                      | - / 0.117                      | - / 0.138                      | - / 0.138                                                           | - / 0.000                      | - / 0.138                      | - / 0.000                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                  | - / -                          | - / 0.393                      |  |
| 2.2) Production Engineering                                                      | - / 0.000                      | - / 0.560                      | - / 0.564                      | - / 0.559                                                           | - / 0.000                      | - / 0.559                      | - / 0.000                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                  | - / -                          | - / 1.683                      |  |
| <i>Subtotal: Support</i>                                                         | - / 0.000                      | - / 0.677                      | - / 0.702                      | - / 0.697                                                           | - / -                          | - / 0.697                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                      | - / 0.000                      | - / 2.076                      |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| <i>Modification Item 1 of 1:</i> AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) | - / 0.000                      | - / 0.992                      | - / 0.500                      | - / 0.500                                                           | - / 0.000                      | - / 0.500                      | - / 0.000                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                  | - / 0.000                      | - / 1.992                      |  |
| <i>Subtotal: Installation</i>                                                    | - / 0.000                      | - / 0.992                      | - / 0.500                      | - / 0.500                                                           | - / -                          | - / 0.500                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                      | - / 0.000                      | - / 1.992                      |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                                            |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>0.000</b>                   | <b>4.069</b>                   | <b>2.426</b>                   | <b>2.397</b>                                                        | <b>0.000</b>                   | <b>2.397</b>                   | <b>0.000</b>                   | <b>0.000</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                               | <b>0.000</b>                   | <b>8.892</b>                   |  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------|-----------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|-----------|---------------------------------------|----------------|--------------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------|----------------|---------------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                               |            |                                       |                                       |           |                                       |                |                                       |           |                                       | <b>Date:</b> February 2018                                          |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                          |            |                                       |                                       |           |                                       |                |                                       |           |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |           |                                       |                |                                            |           |                                       |                |                                       | <b>Modification Number / Title:</b><br>1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                  |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                | <b>MDAP/MAIS Code:</b>                     |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)                                                                                                                                                         |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                          |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                                                                                                                                                              |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                | Manufacturer Location: Marlborough, MA     |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                                                                                                                           |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                | Production Leadtime <i>(in Months)</i> : 6 |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                             |            | <b>FY 2017</b>                        |                                       |           |                                       | <b>FY 2018</b> |                                       |           |                                       | <b>FY 2019</b>                                                      |                                       |           |                                       | <b>FY 2020</b> |                                            |           |                                       | <b>FY 2021</b> |                                       |                                                                                            |                                       | <b>FY 2022</b> |                                       |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                           |            | Dec 2016                              |                                       |           |                                       | Dec 2017       |                                       |           |                                       | Dec 2018                                                            |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                           |            | Jun 2017                              |                                       |           |                                       | Jun 2018       |                                       |           |                                       | Jun 2019                                                            |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                          |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: EQUIPMENT                                                                                                                                                                      |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                 |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        |           | <b>FY 2018</b>                        |                | <b>FY 2019 Base</b>                   |           | <b>FY 2019 OCO</b>                    |                                                                     | <b>FY 2019 Total</b>                  |           | <b>FY 2020</b>                        |                | <b>FY 2021</b>                             |           | <b>FY 2022</b>                        |                | <b>FY 2023</b>                        |                                                                                            | <b>To Complete</b>                    |                | <b>Total</b>                          |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                          |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i>      |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                                            | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                              |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                  |            | - / -                                 | 2 / 0.992                             |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | 0 / 0.000                             |           | 2 / 0.992 |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 |           | 1 / 0.500                             |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | 0 / 0.000                             |           | 1 / 0.500 |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 |           | - / -                                 |                | 1 / 0.500                             |           | 0 / 0.000                             |                                                                     | 1 / 0.500                             |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | 0 / 0.000                             |           | 1 / 0.500 |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                              |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                    |            | - / -                                 | 2 / 0.992                             |           | 1 / 0.500                             |                | 1 / 0.500                             |           | 0 / 0.000                             |                                                                     | 1 / 0.500                             |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                                            | - / -                                 |                | 0 / 0.000                             |           | 4 / 1.992 |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                             |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                        |                                       |           |                                       | <b>FY 2018</b> |                                       |           |                                       | <b>FY 2019</b>                                                      |                                       |           |                                       | <b>FY 2020</b> |                                            |           |                                       | <b>FY 2021</b> |                                       |                                                                                            |                                       | <b>FY 2022</b> |                                       |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                          |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>                                                           | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                                  | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b>                                                                                  | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                       | -          | -                                     | -                                     | 1         | 1                                     | -              | -                                     | 1         | -                                     | -                                                                   | -                                     | -         | 1                                     | -              | -                                          | -         | -                                     | -              | -                                     | -                                                                                          | -                                     | -              | -                                     | -         | -         | -              | -         | -         | -         | -         | 4          |
| Out                                                                                                                                                                                                                                      | -          | -                                     | -                                     | 1         | 1                                     | -              | -                                     | 1         | -                                     | -                                                                   | -                                     | -         | 1                                     | -              | -                                          | -         | -                                     | -              | -                                     | -                                                                                          | -                                     | -              | -                                     | -         | -         | -              | -         | -         | -         | -         | 4          |
| <b>Footnotes:</b><br><sup>(10)</sup> The ASR Range Extension is in response to the HQMC APX-25 Requirement Clarification letter dated 05 Jan 2010. Inventory objective is 15. 11 procurements and 11 installs are funded under BLI 2815. |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                                            |                                       |                |                                       |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                              |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                         |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                          | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                | 0.000              | 1.687          | 0.000          | 0.000                                                               | 0.000              | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                                   | 0.000              | 1.687        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.000              | 1.687          | 0.000          | 0.000                                                               | 0.000              | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                                   | 0.000              | 1.687        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                       | <b>0.000</b>       | <b>1.687</b>   | <b>0.000</b>   | <b>0.000</b>                                                        | <b>0.000</b>       | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                            | <b>0.000</b>       | <b>1.687</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                                         |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -            |
| <p><b>Description:</b></p> <p>Optimized Organizational Maintenance Activity System is an automated management information system that provides Navy and Marine Corps aviation organizational maintenance units with timely and accurate information to aid managers in their daily management of assigned aircraft and equipment.</p> <p>Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2815.</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                                         |                    |              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                    |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       | <b>Date:</b> February 2018                                                                              |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9               |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |                                       |                                       |                                        |                                       | <b>Modification Number / Title:</b><br>2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                 |                                       |                                                                                                         |                                       |                                       |  |
| <b>Models of Systems Affected:</b> NAS/MCAS                                                   |                                       |                                       |                                       | <b>Modification Type:</b> Added Capability                          |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0604504N |                                       |                                                                                                         |                                       |                                       |  |
| <b>Financial Plan</b>                                                                         | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                         | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                                          | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                            |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> Optimized Organizational Maintenance Activity (OOMA) (MJ460) |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| B Kits                                                                                        |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| Recurring                                                                                     |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| 1.1.1) Equipment - NonOrganic <sup>(11)</sup>                                                 | 10 / 0.000                            | 4 / 0.639                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / -                                 | 14 / 0.639                            |  |
| <i>Subtotal: Recurring</i>                                                                    | - / 0.000                             | - / 0.639                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / 0.000                             | - / 0.639                             |  |
| <i>Subtotal: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>                 | 10 / 0.000                            | 4 / 0.639                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / -                                 | 14 / 0.639                            |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                          | - / 0.000                             | - / 0.639                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / 0.000                             | - / 0.639                             |  |
| <b>Support (All Modification Items)</b>                                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| 2.1) Integrated Logistics Support                                                             | - / -                                 | - / 0.242                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / -                                 | - / 0.242                             |  |
| 2.2) Production Engineering                                                                   | - / -                                 | - / 0.374                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / -                                 | - / 0.374                             |  |
| 2.3) Acceptance Testing                                                                       | - / -                                 | - / 0.061                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / -                                 | - / 0.061                             |  |
| <i>Subtotal: Support</i>                                                                      | - / 0.000                             | - / 0.677                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / 0.000                             | - / 0.677                             |  |
| <b>Installation</b>                                                                           |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> Optimized Organizational Maintenance Activity (OOMA) (MJ460) | - / 0.000                             | - / 0.371                             | - / 0.000                             | - / 0.000                                                           | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                              | - / 0.000                             | - / 0.000                                                                                               | - / 0.000                             | - / 0.371                             |  |
| <i>Subtotal: Installation</i>                                                                 | - / 0.000                             | - / 0.371                             | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                  | - / -                                 | - / -                                                                                                   | - / 0.000                             | - / 0.371                             |  |
| <b>Total</b>                                                                                  |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                         |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                      | <b>0.000</b>                          | <b>1.687</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                        | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                           | <b>0.000</b>                          | <b>0.000</b>                                                                                            | <b>0.000</b>                          | <b>1.687</b>                          |  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------|-----------|--------------------------------|----------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           | <b>Date:</b> February 2018     |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |           |                                |                                        |                                |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        | <b>MDAP/MAIS Code:</b>         |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Optimized Organizational Maintenance Activity (OOMA) (MJ460)                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                | Manufacturer Location: Marlborough, MA |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                | Production Leadtime (in Months): 7     |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                             |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |                                        | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                           |            | Dec 2016                       |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                           |            | Jul 2017                       |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Installation Team:: Installation Name: Equipment                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                 |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                  |           | <b>FY 2019 Total</b>           |                                        | <b>FY 2020</b>                 |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                          |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                          |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |           | Qty (Each) / Total Cost (\$ M) |                                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                              |            | - / -                          |           | 10 / 0.265                     |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | 0 / 0.000                      |           | 10 / 0.265                     |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                  |            | - / -                          |           | 4 / 0.106                      |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | 0 / 0.000                      |           | 4 / 0.106                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                    |            | - / -                          |           | 14 / 0.371                     |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                                   |           | 0 / 0.000                      |           | 14 / 0.371                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |                                        | <b>FY 2020</b>                 |           |                                |           | <b>FY 2021</b>                 |           |                                                                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                          |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b>                              | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                               | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                       | -          | -                              | -         | 5                              | 9         | -                              | -         | -                              | -         | -                                                                   | -         | -                              | -                                      | -                              | -         | -                              | -         | -                              | -         | -                                                                                                       | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 14         |
| Out                                                                                                                                                                                                                                      | -          | -                              | -         | 5                              | 9         | -                              | -         | -                              | -         | -                                                                   | -         | -                              | -                                      | -                              | -         | -                              | -         | -                              | -         | -                                                                                                       | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 14         |
| <b>Footnotes:</b><br><sup>(11)</sup> PMW-150 is the government agency that owns and delivers Optimized Organizational Maintenance Activity (OOMA). Inventory objective is 24. 20 procurements and 10 installs are funded under BLI 2815. |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |                                        |                                |           |                                |           |                                |           |                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|--|----------------------------|--------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  |  | <b>Date:</b> February 2018 |                                                        |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |  |  |                            | <b>Modification Number / Title:</b><br>3 / MJ465 AMTAC |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 7.356   | 4.400   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 20.283      | 32.039 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 7.356   | 4.400   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 20.283      | 32.039 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 7.356   | 4.400   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 20.283      | 32.039 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The AN/TRN-47(V)2 Airfield Mobile TACAN (AMTAC) is a new start in FY 2017. It is a one for one replacement for the aging/obsolete AN/TRN-44A TACAN. The AN/TRN-47(V)2 AMTAC is a High Mobility Multipurpose Wheeled Vehicle (HMMWV) transportable, rapid set-up/tear-down, dual channel navigation aid, which provides TACAN-equipped aircraft with range, bearing, and non-precision approach capability.

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LI 2820 - Ashore ATC Equipment  
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|-----------------------------------------------------------------------------------|----------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                        |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018     |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9   |                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                |                                |                                |                                |                                    |                                |                                | <b>Modification Number / Title:</b><br>3 / MJ465 AMTAC |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                           |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                | <b>MDAP/MAIS Code:</b>                                 |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> MJ465 AMTAC                                      |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                   |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Manufacturer Name: TBD                                                            |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                | Manufacturer Location: TBD         |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                            |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                | Production Leadtime (in Months): 8 |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Dates</b>                                                                      | <b>FY 2017</b> |                                |                                |                                | <b>FY 2018</b>                                                      |                                |                                |                                | <b>FY 2019</b>                 |                                |                                |                                    | <b>FY 2020</b>                 |                                |                                                        |           | <b>FY 2021</b> |                |           |           | <b>FY 2022</b> |                |           |           | <b>FY 2023</b> |                |           |           |           |           |            |
| Contract Dates                                                                    | Nov 2016       |                                |                                |                                | Nov 2017                                                            |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Delivery Dates                                                                    | Jul 2017       |                                |                                |                                | Jul 2018                                                            |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                   |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Information</b>                                                   |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Installation Team:: Installation Name: Equipment |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                          |                | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>                 | <b>Total</b>                   |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                   |                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Prior Years                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2017                                                                           |                | - / -                          | 4 / 0.625                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | 0 / 0.000                      | 4 / 0.625                      |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2018                                                                           |                | - / -                          | - / -                          | 2 / 0.319                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | 0 / 0.000                      | 2 / 0.319                      |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2019                                                                           |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2020                                                                           |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2021                                                                           |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2022                                                                           |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2023                                                                           |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| To Complete                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | 6 / 0.971                      | 6 / 0.971                      |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Total                                                                             |                | - / -                          | 4 / 0.625                      | 2 / 0.319                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | 6 / 0.971                      | 12 / 1.915                     |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                      |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                   | <b>PYS</b>     | <b>FY 2017</b>                 |                                |                                |                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                 |                                |                                    |                                | <b>FY 2020</b>                 |                                                        |           |                | <b>FY 2021</b> |           |           |                | <b>FY 2022</b> |           |           |                | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                   |                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                          | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                                              | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                | -              | -                              | -                              | -                              | 4                                                                   | -                              | -                              | -                              | 2                              | -                              | -                              | -                                  | -                              | -                              | -                                                      | -         | -              | -              | -         | -         | -              | -              | -         | -         | -              | -              | -         | -         | -         | 6         | 12         |
| Out                                                                               | -              | -                              | -                              | -                              | 4                                                                   | -                              | -                              | -                              | 2                              | -                              | -                              | -                                  | -                              | -                              | -                                                      | -         | -              | -              | -         | -         | -              | -              | -         | -         | -              | -              | -         | -         | -         | 6         | 12         |
|                                                                                   |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                |                                    |                                |                                |                                                        |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |



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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                               |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / CB010 - DoD Advanced Automation System (DAAS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                          |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                           | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.000              | 4.841          | 4.082          | 2.680                                                               | 0.000              | 2.680                | 0.822                  | 0.227          | 0.234          | 0.329                                                                                    | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.000              | 4.841          | 4.082          | 2.680                                                               | 0.000              | 2.680                | 0.822                  | 0.227          | 0.234          | 0.329                                                                                    | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>0.000</b>       | <b>4.841</b>   | <b>4.082</b>   | <b>2.680</b>                                                        | <b>0.000</b>       | <b>2.680</b>         | <b>0.822</b>           | <b>0.227</b>   | <b>0.234</b>   | <b>0.329</b>                                                                             | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                          |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -                 |
| <p><b>Description:</b></p> <p>The DoD Advanced Automation System (DAAS) is being developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The systems are installed in Navy ATC facilities to replace aging, obsolete equipment and comply with joint DoD/FAA modernization program agreements. DAAS provides for processors and displays for tower and approach controls. Inventory objective of 47.</p> <p>Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                          |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                 |                                |                                |                                |                                                              |                                |                                |                                | Date: February 2018                                                               |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                                                                            |                                |                                |                                | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                |                                |                                | Modification Number / Title:<br>4 / CB010 - DoD Advanced Automation System (DAAS) |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                    |                                |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                   |                                |                                |                                |                                |
| Models of Systems Affected: NAS                                                                                                                                                     |                                |                                |                                | Modification Type: Added Capability                          |                                |                                |                                | Related RDT&E PEs: 0604504N                                                       |                                |                                |                                |                                |
| Financial Plan                                                                                                                                                                      | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                           | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                                                                                                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                                                                                                                         |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Modification Item 1 of 1: CB010 - DoD Advanced Automation System (DAAS)                                                                                                             |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| B Kits                                                                                                                                                                              |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Recurring                                                                                                                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| 2.1.1) End Item - NonOrganic <sup>(12)</sup> 1 / 0.0002 / 1.8161 / 0.935- / - - / - - / - - / - - / - - / - - / - -4 / 2.751                                                        |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| 2.1.2) ECP/OCIR - Organic <sup>(13)</sup> - / - - / 0.500- / 0.450- / 1.350- / - - / 1.350- / 0.822- / 0.227- / 0.234- / 0.329ContinuingContinuing                                  |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Subtotal: Recurring- / 0.000- / 2.316- / 1.385- / 1.350- / - - / 1.350- / 0.822- / 0.227- / 0.234- / 0.329ContinuingContinuing                                                      |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Subtotal: CB010 - DoD Advanced Automation System (DAAS)1 / 0.0002 / 2.3161 / 1.385- / 1.350- / - - / 1.350- / 0.822- / 0.227- / 0.234- / 0.329ContinuingContinuing                  |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Subtotal: Procurement, All Modification Items- / 0.000- / 2.316- / 1.385- / 1.350- / - - / 1.350- / 0.822- / 0.227- / 0.234- / 0.329ContinuingContinuing                            |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Support (All Modification Items)                                                                                                                                                    |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| 3.1) Integrated Logistics Support- / - - / 0.102- / 0.097- / 0.050- / - - / 0.050- / - - / - / - - / - - - / 0.249                                                                  |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| 3.2) Production Engineering- / - - / 0.611- / 0.523- / 0.422- / - - / 0.422- / - - / - / - - / - - - / 1.556                                                                        |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Subtotal: Support- / 0.000- / 0.713- / 0.620- / 0.472- / - - / 0.472- / - - / - / - - / - - - / 0.000- / 1.805                                                                      |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Installation                                                                                                                                                                        |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Modification Item 1 of 1: CB010 - DoD Advanced Automation System (DAAS)- / 0.000- / 1.812- / 2.077- / 0.858- / 0.000- / 0.858- / 0.000- / 0.000- / 0.000- / 0.000- / 0.000- / 4.747 |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Subtotal: Installation- / 0.000- / 1.812- / 2.077- / 0.858- / - - / 0.858- / - - / - / - - / - - - / 0.000- / 4.747                                                                 |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Total                                                                                                                                                                               |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)0.0004.8414.0822.6800.0002.6800.8220.2270.2340.329ContinuingContinuing                                                             |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |
|                                                                                                                                                                                     |                                |                                |                                |                                                              |                                |                                |                                |                                                                                   |                                |                                |                                |                                |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|---------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|----------------------------------------|-----------|--------------------------------|----------------|--------------------------------|------------------------------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                          |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                     |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |           |                                |                |                                        |           |                                |                |                                | <b>Modification Number / Title:</b><br>4 / CB010 - DoD Advanced Automation System (DAAS) |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                | <b>MDAP/MAIS Code:</b>                 |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CB010 - DoD Advanced Automation System (DAAS)                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                | Manufacturer Location: Marlborough, MA |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                | Production Leadtime (in Months): 12    |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                        |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                      |                                |           |                                | <b>FY 2020</b> |                                        |           |                                | <b>FY 2021</b> |                                |                                                                                          |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                      |            | Mar 2017                       |                                |           |                                | Mar 2018       |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                      |            | Mar 2018                       |                                |           |                                | Mar 2019       |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: End Item                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                            |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                     | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                         |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                                          | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                     |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)         |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                                          | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          | 1 / 1.043                      |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 1 / 1.043                      |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | 0 / 0.769                      |           | 2 / 1.477                      |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 2 / 2.246                      |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | 0 / 0.600                      |                | 1 / 0.858                      |           | 0 / 0.000                      |                                                                     | 1 / 0.858                      |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 1 / 1.458                      |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | 1 / 1.812                      |           | 2 / 2.077                      |                | 1 / 0.858                      |           | 0 / 0.000                      |                                                                     | 1 / 0.858                      |           | - / -                          |                | - / -                                  |           | - / -                          |                | - / -                          |                                                                                          | 0 / 0.000                      |                | 4 / 4.747                      |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                      |                                |           |                                | <b>FY 2020</b> |                                        |           |                                | <b>FY 2021</b> |                                |                                                                                          |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                           | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                              | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                                                | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                  | -          | -                              | 1                              | -         | -                              | -              | 1                              | 1         | -                              | -                                                                   | 1                              | -         | -                              | -              | -                                      | -         | -                              | -              | -                              | -                                                                                        | -                              | -              | -                              | -         | -         | -              | -         | -         | -         | -         | 4          |
| Out                                                                                                                                                                                                                                                                                                                                                                 | -          | -                              | -                              | 1         | -                              | -              | -                              | 1         | 1                              | -                                                                   | -                              | 1         | -                              | -              | -                                      | -         | -                              | -              | -                              | -                                                                                        | -                              | -              | -                              | -         | -         | -              | -         | -         | -         | -         | 4          |
| <b>Footnotes:</b><br><sup>(12)</sup> DAAS - Advanced Planning (AP) costs for Installation occur 1 year prior to actual install and show as quantity zero. These upgrades are required to maintain radar connectivity with the FAA in order to preserve Fleet capability to sequence and separate aircraft in assigned airspace within the National Airspace System. |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                        |           |                                |                |                                |                                                                                          |                                |                |                                |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                     | <b>Date:</b> February 2018                                                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment | <b>Modification Number / Title:</b><br>4 / CB010 - DoD Advanced Automation System (DAAS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                     | <b>MDAP/MAIS Code:</b>                                                                   |
| <p>(13) ECP costs are based on site unique software configurations through the rest of the FYDP. Cost increases FY19 -21 are caused by requirement to upgrade the DAAS operating system which no longer has vendor support and upgrade the DAAS from legacy point to point analog interface capability to flexible Internet Protocol (IP) addressable interfaces. Upgrades are driven by the FAA's Surveillance Interface Modernization (SIM) program. These upgrades are required to maintain radar connectivity with the FAA in order to preserve Fleet capability to sequence and separate aircraft in assigned airspace within the National Airspace System.</p> |                                                                     |                                                                                          |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|---------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|--------------------------------------------------------------------------------------------|--------------------|--------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                     |                                                                     |                      |                        |                |                | <b>Date:</b> February 2018                                                                 |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>5 / CB030 Digital Airport Surveillance Radar (DASR) |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                     |                                                                     |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                            |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                             | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.000              | 0.400          | 0.400          | 0.939               | 0.000                                                               | 0.939                | 0.915                  | 0.220          | 0.256          | 0.351                                                                                      | 0.000              | 3.481        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 0.400          | 0.400          | 0.939               | 0.000                                                               | 0.939                | 0.915                  | 0.220          | 0.256          | 0.351                                                                                      | 0.000              | 3.481        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>0.000</b>       | <b>0.400</b>   | <b>0.400</b>   | <b>0.939</b>        | <b>0.000</b>                                                        | <b>0.939</b>         | <b>0.915</b>           | <b>0.220</b>   | <b>0.256</b>   | <b>0.351</b>                                                                               | <b>0.000</b>       | <b>3.481</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                            |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                          | -                  | -            |
| <p><b>Description:</b></p> <p>The DASR was developed as part of a joint DoD/ FAA program to modernize and standardize ATC equipment in the National Airspace System. The DASR has enabled Navy ATC facilities to replace aging, obsolete approach control radars and comply with joint DoD/FAA modernization program agreements. Inventory objective of 29 DASR. 29 were procured and installed prior to FY2017 were funded under BLI 2840.</p> <p>The FAA DASR technical refreshment has not progressed as planned and has been reorganized into multiple Engineering Change Proposals (ECPs) to mitigate obsolescence effective FY2017. An ECP line has been added to the budget starting in FY2017 to address these upgrades.</p> |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                            |                    |              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                 |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9  |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>5 / CB030 Digital Airport Surveillance Radar (DASR) |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                            |                                           |                                           |  |
| <b>Models of Systems Affected:</b> NAS                                           |                                           |                                           |                                           | <b>Modification Type:</b> Added Capability                          |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b> 0604504N    |                                           |                                                                                            |                                           |                                           |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                             | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                             | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                           | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                               |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> CB030 Digital Airport Surveillance Radar (DASR) |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| B Kits                                                                           |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| Recurring                                                                        |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| 1.1.2) ECP/OCIR - Organic <sup>(14)</sup>                                        | - / -                                     | - / 0.400                                 | - / 0.400                                 | - / 0.939                                                           | - / -                                     | - / 0.939                                 | - / 0.915                                 | - / 0.220                                 | - / 0.256                                 | - / 0.351                                                                                  | - / -                                     | - / 3.481                                 |  |
| <i>Subtotal: Recurring</i>                                                       | <i>- / 0.000</i>                          | <i>- / 0.400</i>                          | <i>- / 0.400</i>                          | <i>- / 0.939</i>                                                    | <i>- / -</i>                              | <i>- / 0.939</i>                          | <i>- / 0.915</i>                          | <i>- / 0.220</i>                          | <i>- / 0.256</i>                          | <i>- / 0.351</i>                                                                           | <i>- / 0.000</i>                          | <i>- / 3.481</i>                          |  |
| <i>Subtotal: CB030 Digital Airport Surveillance Radar (DASR)</i>                 | <i>- / -</i>                              | <i>- / 0.400</i>                          | <i>- / 0.400</i>                          | <i>- / 0.939</i>                                                    | <i>- / -</i>                              | <i>- / 0.939</i>                          | <i>- / 0.915</i>                          | <i>- / 0.220</i>                          | <i>- / 0.256</i>                          | <i>- / 0.351</i>                                                                           | <i>- / -</i>                              | <i>- / 3.481</i>                          |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | <i>- / 0.000</i>                          | <i>- / 0.400</i>                          | <i>- / 0.400</i>                          | <i>- / 0.939</i>                                                    | <i>- / -</i>                              | <i>- / 0.939</i>                          | <i>- / 0.915</i>                          | <i>- / 0.220</i>                          | <i>- / 0.256</i>                          | <i>- / 0.351</i>                                                                           | <i>- / 0.000</i>                          | <i>- / 3.481</i>                          |  |
| <b>Installation</b>                                                              |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| <i>Subtotal: Installation</i>                                                    | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                        | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                               | <i>- / -</i>                              | <i>- / -</i>                              |  |
| <b>Total</b>                                                                     |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                           |                                           |                                                                                            |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>0.000</b>                              | <b>0.400</b>                              | <b>0.400</b>                              | <b>0.939</b>                                                        | <b>0.000</b>                              | <b>0.939</b>                              | <b>0.915</b>                              | <b>0.220</b>                              | <b>0.256</b>                              | <b>0.351</b>                                                                               | <b>0.000</b>                              | <b>3.481</b>                              |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                |                                                                     |                                              | <b>Date:</b> February 2018 |                                                                                            |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                              |                            | <b>Modification Number / Title:</b><br>5 / CB030 Digital Airport Surveillance Radar (DASR) |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                |                                                                     |                                              | <b>MDAP/MAIS Code:</b>     |                                                                                            |                |
| <b>Modification Item 1 of 1:</b> CB030 Digital Airport Surveillance Radar (DASR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                |                                                                     |                                              |                            |                                                                                            |                |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                |                                                                     |                                              |                            |                                                                                            |                |
| Manufacturer Name: MOOG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                |                                                                     | Manufacturer Location: Salt Lake City, UT    |                            |                                                                                            |                |
| Administrative Leadtime ( <i>in Months</i> ): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                |                                                                     | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                                            |                |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                             | <b>FY 2023</b> |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                |                                                                     |                                              |                            |                                                                                            |                |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                |                                                                     |                                              |                            |                                                                                            |                |
| Manufacturer Name: Raytheon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                |                                                                     | Manufacturer Location: Marlborough, MA       |                            |                                                                                            |                |
| Administrative Leadtime ( <i>in Months</i> ): 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                |                                                                     | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                                            |                |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                             | <b>FY 2023</b> |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                |                                                                     |                                              |                            |                                                                                            |                |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                |                                                                     |                                              |                            |                                                                                            |                |
| <b>Footnotes:</b><br><sup>(14)</sup> The Digital Airport Surveillance Radar (DASR) ECP/OCIR upgrades are required to maintain radar connectivity with the FAA in order to preserve Fleet capability to sequence and separate aircraft in assigned airspace within the National Airspace System. The increase from FY18-19 is driven by the FAA's Surveillance Interface Modernization (SIM) program, which begins in FY19. The Digital Airport Surveillance Radar (DASR) will be upgraded from legacy point to point analog interface capability to flexible Internet Protocol (IP) addressable interfaces. This is scheduled to be a two year effort. |                |                |                                                                     |                                              |                            |                                                                                            |                |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|--------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                     |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>6 / CB040 Tower Automation System (TAS) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                 | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.000              | 0.200          | 0.200          | 1.682                                                               | 0.000              | 1.682                | 0.536                  | 0.400          | 0.429          | 0.437                                                                          | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.000              | 0.200          | 0.200          | 1.682                                                               | 0.000              | 1.682                | 0.536                  | 0.400          | 0.429          | 0.437                                                                          | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>0.000</b>       | <b>0.200</b>   | <b>0.200</b>   | <b>1.682</b>                                                        | <b>0.000</b>       | <b>1.682</b>         | <b>0.536</b>           | <b>0.400</b>   | <b>0.429</b>   | <b>0.437</b>                                                                   | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| <p><b>Description:</b></p> <p>The TAS was developed as part of a joint DoD/ FAA program to modernize and standardize ATC equipment in the National Airspace System. The TAS has enabled Navy ATC facilities to replace aging, obsolete equipment and comply with joint DoD/FAA modernization program agreements. Inventory objective of 57 TAS.</p> <p>This effort includes Engineering Change Proposal (ECP) efforts directly related to the TAS Tech Refresh efforts detailed in cost element CB070 of this budget. The ECP introduces new capability into a common workstation that eliminates a separate visual communications alert indicator. The nature of that consolidation creates an interdependency with CB070; which addresses severe obsolescence issues that render the current workstation configuration unsupportable. Both software and hardware for these two cost elements overlap and require concurrent efforts. Delay or interruption to either CB040 and/or CB070 causes a break in fleet capability and negatively impacts both flight safety and operator workload.</p> <p>Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                |                    |                   |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       | <b>Date:</b> February 2018                                                     |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |                                       |                                       |                                        |                                       | <b>Modification Number / Title:</b><br>6 / CB040 Tower Automation System (TAS) |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                 |                                       |                                                                                |                                       |                                       |  |
| <b>Models of Systems Affected:</b> NAS                                          |                                       |                                       |                                       | <b>Modification Type:</b> Added Capability                          |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0604504N |                                       |                                                                                |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                         | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                 | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                          | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> CB040 Tower Automation System (TAS)            |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| 1.1.1) ECP/OCIR - Organic <sup>(15)</sup>                                       | - / -                                 | - / 0.200                             | - / 0.200                             | - / 1.682                                                           | - / -                                 | - / 1.682                             | - / 0.536                             | - / 0.400                              | - / 0.429                             | - / 0.437                                                                      | Continuing                            | Continuing                            |  |
| <i>Subtotal: Recurring</i>                                                      | <i>- / 0.000</i>                      | <i>- / 0.200</i>                      | <i>- / 0.200</i>                      | <i>- / 1.682</i>                                                    | <i>- / -</i>                          | <i>- / 1.682</i>                      | <i>- / 0.536</i>                      | <i>- / 0.400</i>                       | <i>- / 0.429</i>                      | <i>- / 0.437</i>                                                               | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: CB040 Tower Automation System (TAS)</i>                            | <i>- / -</i>                          | <i>- / 0.200</i>                      | <i>- / 0.200</i>                      | <i>- / 1.682</i>                                                    | <i>- / -</i>                          | <i>- / 1.682</i>                      | <i>- / 0.536</i>                      | <i>- / 0.400</i>                       | <i>- / 0.429</i>                      | <i>- / 0.437</i>                                                               | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | <i>- / 0.000</i>                      | <i>- / 0.200</i>                      | <i>- / 0.200</i>                      | <i>- / 1.682</i>                                                    | <i>- / -</i>                          | <i>- / 1.682</i>                      | <i>- / 0.536</i>                      | <i>- / 0.400</i>                       | <i>- / 0.429</i>                      | <i>- / 0.437</i>                                                               | <i>Continuing</i>                     | <i>Continuing</i>                     |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| <i>Subtotal: Installation</i>                                                   | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                                                        | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                          | <i>- / -</i>                           | <i>- / -</i>                          | <i>- / -</i>                                                                   | <i>- / -</i>                          | <i>- / -</i>                          |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                          | <b>0.200</b>                          | <b>0.200</b>                          | <b>1.682</b>                                                        | <b>0.000</b>                          | <b>1.682</b>                          | <b>0.536</b>                          | <b>0.400</b>                           | <b>0.429</b>                          | <b>0.437</b>                                                                   | <b>Continuing</b>                     | <b>Continuing</b>                     |  |
|                                                                                 |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                |                                       |                                       |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                |                |                                                                     |                | <b>Date:</b> February 2018                   |                                                                                |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                |                                              | <b>Modification Number / Title:</b><br>6 / CB040 Tower Automation System (TAS) |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                |                |                                                                     |                | <b>MDAP/MAIS Code:</b>                       |                                                                                |                |
| <b>Modification Item 1 of 1:</b> CB040 Tower Automation System (TAS)            |                |                |                                                                     |                |                                              |                                                                                |                |
| <b>Manufacturer Information</b>                                                 |                |                |                                                                     |                |                                              |                                                                                |                |
| Manufacturer Name: Spawar Systems Center Atlantic                               |                |                |                                                                     |                | Manufacturer Location: Charleston, SC        |                                                                                |                |
| Administrative Leadtime ( <i>in Months</i> ): 6                                 |                |                |                                                                     |                | Production Leadtime ( <i>in Months</i> ): 12 |                                                                                |                |
| <b>Dates</b>                                                                    | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                      | <b>FY 2020</b> | <b>FY 2021</b>                               | <b>FY 2022</b>                                                                 | <b>FY 2023</b> |
| Contract Dates                                                                  |                |                |                                                                     |                |                                              |                                                                                |                |
| Delivery Dates                                                                  |                |                |                                                                     |                |                                              |                                                                                |                |

**Footnotes:**

(15) Support costs are included in the ECP/OCIR lines. Airfield Lighting Control System (AFLCS) realigned to the Terminal Automation System from MR510 of this budget beginning in FY18. The cost increase from \$200K in FY18 to \$1,682K in FY19 is due to the significant ECP efforts beginning in FY19 to upgrade all Windows based operating systems in Air Traffic Control Towers to Windows 10 in order to meet DoD's Information Assurance / Cyber security requirements.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                             |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>7 / CB050 STARS TECH Refresh Upgrade |  |  |  |

|                                                         |  |  |  |  |  |                        |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|--------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 0.000       | 11.360  | 14.262  | 11.539       | 0.000       | 11.539        | 2.682   | 0.000   | 0.000   | 0.000   | 0.000       | 39.843 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 0.000       | 11.360  | 14.262  | 11.539       | 0.000       | 11.539        | 2.682   | 0.000   | 0.000   | 0.000   | 0.000       | 39.843 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 0.000       | 11.360  | 14.262  | 11.539       | 0.000       | 11.539        | 2.682   | 0.000   | 0.000   | 0.000   | 0.000       | 39.843 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |        |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -      |

**Description:**

The Standard Terminal Automation Replacement System (STARS) is a joint (DoD) and Department of Transportation FAA program to modernize terminal air traffic control automation systems. The STARS contract was awarded by the FAA on September 16, 1996, and ends September 30, 2017. The FAA anticipates the award of a contract for system maintenance, system technical refresh, and system enhancements through fiscal year 2019. The FAA began the Next Generation Air Transportation System initiative in FY2008. A major component of this capability is Automatic Dependent Surveillance Broadcast, which will provide aircraft position information in place of ground-based radar. The DoD version of STARS DAAS must be upgraded to meet this requirement. Inventory objective is 38.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                  |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>7 / CB050 STARS TECH Refresh Upgrade |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                             |                                |                                |  |
| <b>Models of Systems Affected:</b> NAS                                          |                                |                                |                                | <b>Modification Type:</b> AIT                                       |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604504N |                                |                                                                             |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                              | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| <i>Modification Item 1 of 1:</i> CB050 STARS TECH Refresh Upgrade               |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| 2.1.1) End Item - NonOrganic <sup>(16)</sup>                                    | 4 / 0.000                      | 7 / 9.385                      | 8 / 11.081                     | 6 / 8.119                                                           | - / -                          | 6 / 8.119                      | - / -                          | - / -                                  | - / -                          | - / -                                                                       | - / -                          | 25 / 28.585                    |  |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                      | - / 9.385                      | - / 11.081                     | - / 8.119                                                           | - / -                          | - / 8.119                      | - / -                          | - / -                                  | - / -                          | - / -                                                                       | - / 0.000                      | - / 28.585                     |  |
| <i>Subtotal: CB050 STARS TECH Refresh Upgrade</i>                               | 4 / 0.000                      | 7 / 9.385                      | 8 / 11.081                     | 6 / 8.119                                                           | - / -                          | 6 / 8.119                      | - / -                          | - / -                                  | - / -                          | - / -                                                                       | - / -                          | 25 / 28.585                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                      | - / 9.385                      | - / 11.081                     | - / 8.119                                                           | - / -                          | - / 8.119                      | - / -                          | - / -                                  | - / -                          | - / -                                                                       | - / 0.000                      | - / 28.585                     |  |
| <b>Support (All Modification Items)</b>                                         |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| 3.1) Integrated Logistics Support                                               | - / -                          | - / 0.150                      | - / 0.150                      | - / 0.150                                                           | - / -                          | - / 0.150                      | - / 0.153                      | - / -                                  | - / -                          | - / -                                                                       | - / -                          | - / 0.603                      |  |
| 3.2) Production Engineering                                                     | - / -                          | - / 0.451                      | - / 0.579                      | - / 0.547                                                           | - / -                          | - / 0.547                      | - / 0.549                      | - / -                                  | - / -                          | - / -                                                                       | - / -                          | - / 2.126                      |  |
| <i>Subtotal: Support</i>                                                        | - / 0.000                      | - / 0.601                      | - / 0.729                      | - / 0.697                                                           | - / -                          | - / 0.697                      | - / 0.702                      | - / -                                  | - / -                          | - / -                                                                       | - / 0.000                      | - / 2.729                      |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| <i>Modification Item 1 of 1:</i> CB050 STARS TECH Refresh Upgrade               | - / 0.000                      | - / 1.374                      | - / 2.452                      | - / 2.723                                                           | - / 0.000                      | - / 2.723                      | - / 1.980                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                   | - / 0.000                      | - / 8.529                      |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                      | - / 1.374                      | - / 2.452                      | - / 2.723                                                           | - / -                          | - / 2.723                      | - / 1.980                      | - / -                                  | - / -                          | - / -                                                                       | - / 0.000                      | - / 8.529                      |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                        |                                |                                                                             |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                   | <b>11.360</b>                  | <b>14.262</b>                  | <b>11.539</b>                                                       | <b>0.000</b>                   | <b>11.539</b>                  | <b>2.682</b>                   | <b>0.000</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                | <b>0.000</b>                   | <b>39.843</b>                  |  |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|---------------------------------------------------------------------|----------------|--------------------------------|----------------|--------------------------------|----------------------------|--------------------------------|-----------|----------------------------------------|----------------|-----------------------------------------------------------------------------|-----------|--------------------------------|----------------|--------------------------------|----------------|--------------------------------|----------------|--------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                                                     |                |                                |                |                                | <b>Date:</b> February 2018 |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                |                                |                |                                |                            |                                |           |                                        |                | <b>Modification Number / Title:</b><br>7 / CB050 STARS TECH Refresh Upgrade |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |                                |           |                                                                     |                |                                |                |                                | <b>MDAP/MAIS Code:</b>     |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CB050 STARS TECH Refresh Upgrade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           | Manufacturer Location: Marlborough, MA |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           | Production Leadtime (in Months): 12    |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>FY 2017</b>                 |                                |           | <b>FY 2018</b>                                                      |                |                                | <b>FY 2019</b> |                                |                            | <b>FY 2020</b>                 |           |                                        | <b>FY 2021</b> |                                                                             |           | <b>FY 2022</b>                 |                |                                | <b>FY 2023</b> |                                |                |              |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Mar 2017                       |                                |           | Mar 2018                                                            |                |                                | Mar 2019       |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Mar 2018                       |                                |           | Mar 2019                                                            |                |                                | Mar 2020       |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: End Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                                                      |                | <b>FY 2019 Base</b>            |                | <b>FY 2019 OCO</b>             |                            | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                         |                | <b>FY 2021</b>                                                              |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                | <b>To Complete</b>             |                | <b>Total</b> |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |                | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)         |                | Qty (Each) / Total Cost (\$ M)                                              |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                |              |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | 4 / 1.374                      |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 4 / 1.374    |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | 7 / 2.452                                                           |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 7 / 2.452    |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                                                               |                | 8 / 2.723                      |                | 0 / 0.000                      |                            | 8 / 2.723                      |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 8 / 2.723    |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | 6 / 1.980                              |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 6 / 1.980    |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                                                               |                | - / -                          |                | - / -                          |                            | - / -                          |           | - / -                                  |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -        |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | - / -                          | 4 / 1.374                      |           | 7 / 2.452                                                           |                | 8 / 2.723                      |                | 0 / 0.000                      |                            | 8 / 2.723                      |           | 6 / 1.980                              |                | - / -                                                                       |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 25 / 8.529   |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                                                     | <b>FY 2018</b> |                                |                |                                | <b>FY 2019</b>             |                                |           |                                        | <b>FY 2020</b> |                                                                             |           |                                | <b>FY 2021</b> |                                |                |                                | <b>FY 2022</b> |              |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                                                           | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>      | <b>Q4</b>                      | <b>Q1</b>                  | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                              | <b>Q1</b>      | <b>Q2</b>                                                                   | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>    | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -          | -                              | 2                              | 2         | -                                                                   | -              | 4                              | 3              | -                              | -                          | 3                              | 3         | 2                                      | -              | 2                                                                           | 2         | 2                              | -              | -                              | -              | -                              | -              | -            | -         | -         | -              | -         | -         | -         | -         | 25         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -          | -                              | -                              | 2         | 2                                                                   | -              | -                              | 4              | 3                              | -                          | -                              | 4         | 4                                      | -              | -                                                                           | 3         | 3                              | -              | -                              | -              | -                              | -              | -            | -         | -         | -              | -         | -         | -         | -         | 25         |
| <b>Footnotes:</b><br><sup>(16)</sup> This effort was previously funded in BLI 2840. Support cost fluctuations are due to variations in Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements. (3) Installation costs fluctuate based on location of installation and the tailoring of systems to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements. Decrease in inventory objective due to incorrect system count. 8 remote tower configuration were inadvertently counted as full STARS Tech Refresh systems and not as |            |                                |                                |           |                                                                     |                |                                |                |                                |                            |                                |           |                                        |                |                                                                             |           |                                |                |                                |                |                                |                |              |           |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                      |                                                                     | <b>Date:</b> February 2018                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                 | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment | <b>Modification Number / Title:</b><br>7 / CB050 STARS TECH Refresh Upgrade |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                         |                                                                     | <b>MDAP/MAIS Code:</b>                                                      |
| part of the parent facility STARS Tech Refresh System. Remote towers will be procured as part of the parent facility. Additionally, NAS Willow Grove and NAS Brunswick were included in the inventory objective. NAS Willow Grove and NAS Brunswick were disestablished in 2011 as part of Base Realignment and Closure (BRAC). |                                                                     |                                                                             |

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|---------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment | <b>Modification Number / Title:</b><br>8 / CB070 TAS Tech Refresh |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 4.055   | 2.517   | 4.158        | 0.000       | 4.158           | 4.716   | 1.667   | 0.000   | 0.000   | 0.000       | 17.113 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 4.055   | 2.517   | 4.158        | 0.000       | 4.158           | 4.716   | 1.667   | 0.000   | 0.000   | 0.000       | 17.113 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 4.055   | 2.517   | 4.158        | 0.000       | 4.158           | 4.716   | 1.667   | 0.000   | 0.000   | 0.000       | 17.113 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The Tower Automation Systems have been fielded since 2001 and are experiencing obsolescence and Information Assurance (IA) issues. These upgrades will address these obsolescence and IA issues as well as maintain compatibility with the FAA's Next Generation (NextGen) Air Transportation System initiatives. Additionally, these upgrades will enhance system performance to provide Common Access Card utilization, multi-source weather reporting and Tactical Air Control Navigation (TACAN) control. In order to achieve the modernization of the National Air Space (NAS) envisioned by NextGen, the FAA is developing a Terminal Flight Data Management (TFDM) platform that integrates flight data systems and decision support tools. The TFDM program is an integrated approach to maximize the efficient collection, distribution, and update of data and improve access to information necessary for the safe and efficient control of air traffic. The TAS will be upgraded to be consistent with the FAA TFDM.

This effort includes TAS Tech Refresh efforts directly related to the Engineering Change Proposal (ECP) efforts detailed in cost element CB040 of this budget. The ECP introduces new capability into a common workstation that eliminates a separate visual communications (VISCOM) alert indicator. The nature of that consolidation creates an interdependency with CB040; which addresses severe obsolescence issues that render the current workstation configuration unsupportable. Both software and hardware for these two cost elements overlap and require concurrent efforts. Delay or interruption to either CB040 and/or CB070 causes a break in fleet capability and negatively impacts both flight safety and operator workload.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                     |                                                              |                                |                                |                                | Date: February 2018                                        |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9 |                                |                                |                                     | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                |                                |                                | Modification Number / Title:<br>8 / CB070 TAS Tech Refresh |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                     |                                                              |                                |                                | MDAP/MAIS Code:                |                                                            |                                |                                |                                |                                |  |
| Models of Systems Affected: NAS                                          |                                |                                | Modification Type: Added Capability |                                                              |                                |                                |                                | Related RDT&E PEs: 0604504N                                |                                |                                |                                |                                |  |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                             | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                    | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)      | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                              |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: CB070 TAS Tech Refresh                         |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| B Kits                                                                   |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Recurring                                                                |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| 2.1.1) End Item - NonOrganic <sup>(17)</sup>                             |                                | 16 / 0.000                     | 10 / 1.594                          | 5 / 0.780                                                    | 18 / 2.862                     | - / -                          | 18 / 2.862                     | 7 / 1.127                                                  | - / -                          | - / -                          | - / -                          | 56 / 6.363                     |  |
| Subtotal: Recurring                                                      |                                | - / 0.000                      | - / 1.594                           | - / 0.780                                                    | - / 2.862                      | - / -                          | - / 2.862                      | - / 1.127                                                  | - / -                          | - / -                          | - / -                          | - / 6.363                      |  |
| Subtotal: CB070 TAS Tech Refresh                                         |                                | 16 / 0.000                     | 10 / 1.594                          | 5 / 0.780                                                    | 18 / 2.862                     | - / -                          | 18 / 2.862                     | 7 / 1.127                                                  | - / -                          | - / -                          | - / -                          | 56 / 6.363                     |  |
| Subtotal: Procurement, All Modification Items                            |                                | - / 0.000                      | - / 1.594                           | - / 0.780                                                    | - / 2.862                      | - / -                          | - / 2.862                      | - / 1.127                                                  | - / -                          | - / -                          | - / -                          | - / 6.363                      |  |
| Support (All Modification Items)                                         |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| 3.1) Integrated Logistics Support <sup>(18)</sup>                        |                                | - / -                          | - / 0.149                           | - / 0.124                                                    | - / 0.105                      | - / -                          | - / 0.105                      | - / 0.105                                                  | - / 0.106                      | - / -                          | - / -                          | - / 0.589                      |  |
| 3.2) Production Engineering                                              |                                | - / -                          | - / 0.373                           | - / 0.413                                                    | - / 0.251                      | - / -                          | - / 0.251                      | - / 0.249                                                  | - / 0.248                      | - / -                          | - / -                          | - / 1.534                      |  |
| Subtotal: Support                                                        |                                | - / 0.000                      | - / 0.522                           | - / 0.537                                                    | - / 0.356                      | - / -                          | - / 0.356                      | - / 0.354                                                  | - / 0.354                      | - / -                          | - / -                          | - / 2.123                      |  |
| Installation                                                             |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: CB070 TAS Tech Refresh                         |                                | - / 0.000                      | - / 1.939                           | - / 1.200                                                    | - / 0.940                      | - / 0.000                      | - / 0.940                      | - / 3.235                                                  | - / 1.313                      | - / 0.000                      | - / 0.000                      | - / 8.627                      |  |
| Subtotal: Installation                                                   |                                | - / 0.000                      | - / 1.939                           | - / 1.200                                                    | - / 0.940                      | - / -                          | - / 0.940                      | - / 3.235                                                  | - / 1.313                      | - / -                          | - / -                          | - / 8.627                      |  |
| Total                                                                    |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                        |                                | 0.000                          | 4.055                               | 2.517                                                        | 4.158                          | 0.000                          | 4.158                          | 4.716                                                      | 1.667                          | 0.000                          | 0.000                          | 17.113                         |  |
|                                                                          |                                |                                |                                     |                                                              |                                |                                |                                |                                                            |                                |                                |                                |                                |  |



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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------------------------------------|--------------------------------|-----------|---------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                | <b>Date:</b> February 2018                                          |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |           |                                             |           |                                |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>8 / CB070 TAS Tech Refresh |           |                                |           |                |           |           |           |           |            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           | <b>MDAP/MAIS Code:</b>         |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Modification Item 1 of 1:</b> CB070 TAS Tech Refresh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| Manufacturer Name: Pen-Tech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           | Manufacturer Location: Charleston, SC       |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| Administrative Leadtime <i>(in Months)</i> : 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           | Production Leadtime <i>(in Months)</i> : 12 |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                 |                                                                     |                                |           | <b>FY 2020</b>                              |           |                                |           | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                                                    |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |  |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | Mar 2017                       |           |                                |           | Mar 2018                       |           |                                |           | Mar 2019                       |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | Mar 2018                       |           |                                |           | Mar 2019                       |           |                                |           | Mar 2020                       |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Method of Implementation:</b> ALT:: Installation Name: End Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                     | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                              |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                 |           | <b>To Complete</b>                                                |           | <b>Total</b>                   |           |                |           |           |           |           |            |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)              |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                    |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |  |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          |           | 16 / 1.939                     |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                         |           | 16 / 1.939                     |           |                |           |           |           |           |            |  |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | 10 / 1.200                     |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                         |           | 10 / 1.200                     |           |                |           |           |           |           |            |  |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | 5 / 0.940                      |           | 0 / 0.000                      |                                                                     | 5 / 0.940                      |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                         |           | 5 / 0.940                      |           |                |           |           |           |           |            |  |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | 18 / 3.235                                  |           | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                         |           | 18 / 3.235                     |           |                |           |           |           |           |            |  |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | 7 / 1.313                      |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                         |           | 7 / 1.313                      |           |                |           |           |           |           |            |  |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           |                |           |           |           |           |            |  |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                                       |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           |                |           |           |           |           |            |  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | - / -                          |           | 16 / 1.939                     |           | 10 / 1.200                     |           | 5 / 0.940                      |           | 0 / 0.000                      |                                                                     | 5 / 0.940                      |           | 18 / 3.235                                  |           | 7 / 1.313                      |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                         |           | 56 / 8.627                     |           |                |           |           |           |           |            |  |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                 |                                                                     |                                |           | <b>FY 2020</b>                              |           |                                |           | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                                                    |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                   | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                         | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |  |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -          | -                              | 8         | 8                              | -         | -                              | 5         | 5                              | -         | -                              | 2                                                                   | 3                              | -         | -                                           | 9         | 9                              | -         | -                              | 4         | 3                              | -         | -                                                                 | -         | -                              | -         | -              | -         | -         | -         | -         | 56         |  |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -          | -                              | -         | 8                              | 8         | -                              | -         | 5                              | 5         | -                              | -                                                                   | 2                              | 3         | -                                           | -         | 9                              | 9         | -                              | -         | 4                              | 3         | -                                                                 | -         | -                              | -         | -              | -         | -         | -         | -         | 56         |  |
| <b>Footnotes:</b><br><sup>(17)</sup> Inventory objective is 63. 23 procurements and 7 installations were funded prior to FY2017 and are funded on BLI 2840. Installation of FY2016 End Item procurements (qty 16) will be funded with FY2017 funding. Increase in inventory objective due to addition of 5 outlying fields of parent facilities not included in initial inventory objective that require the TAS Tech Refresh. Inventory objective is 63. Installation cost fluctuation are due to variations in Nava Air Station / Fleet Area Control and Surveillance Facility, and Marine Corps Air Station Mission requirements.<br><sup>(18)</sup> Support cost fluctuations are due to variations in Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements. |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                     |                                |           |                                             |           |                                |           |                                |           |                                |           |                                                                   |           |                                |           |                |           |           |           |           |            |  |

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|---------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|----------------------------|--|-------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                         |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>9 / CB080 NAS Voice System (NVS) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 6.350   | 7.508   | 6.589        | 0.000       | 6.589           | 14.431  | 23.326  | 22.661  | 16.121  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 6.350   | 7.508   | 6.589        | 0.000       | 6.589           | 14.431  | 23.326  | 22.661  | 16.121  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 6.350   | 7.508   | 6.589        | 0.000       | 6.589           | 14.431  | 23.326  | 22.661  | 16.121  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

FAA NAS Voice System(NVS) was a new start in FY 2015 and a forward-looking program to replace national airspace system (NAS) voice switches and radios with a new technology system capable of supporting future requirements for the NextGen. Many of these switches are experiencing increasing obsolescence and failures and are in need of replacement. They are not capable of supporting flexible reallocation of access to communications resources, and lack security needed for a network-based communications infrastructure, which is a key concept in modernization of the NAS. The NVS program will provide a key transitional element in the air traffic control voice communications infrastructure as it moves toward realizing the FAAs NextGen vision and a more operationally efficient and economic NAS.

Radios: There are 75 sites which will receive a total of 4,498 radios. The sites to receive radios include FACSFACs remote sites at Naval and Marine Corps Air Stations. The number of radios per site varies due to operational requirements and the number of aircraft serviced.

Voice Switches: There are two specific types of Voice Switches being procured: Operational Communication System (OCS) and Emergency Control System (ECS): 56 OCS Voice Switches, 42 ECS Voice Switches.

42 Sites will receive both an OCS Voice Switch and an ECS Voice Switch, 14 sites will receive only an OCS voice switch. While FACSFAC remote sites are equipped with radios, they are not equipped with Voice Switches.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                                              |                                |                                |                                |                                | Date: February 2018                                              |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9 |                                |                                | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                |                                |                                |                                | Modification Number / Title:<br>9 / CB080 NAS Voice System (NVS) |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                |                                                                  |                                |                                |                                |                                |
| Models of Systems Affected: NAS                                          |                                |                                | Modification Type: Added Capability                          |                                |                                |                                |                                | Related RDT&E PEs: 0604504N                                      |                                |                                |                                |                                |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                                                      | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                          | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                              |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Modification Item 1 of 1: CB080 NAS Voice System (NVS)                   |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| B Kits                                                                   |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Recurring                                                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| 2.1.2) End Item: Radios - NonOrganic <sup>(19)</sup>                     | 334 / 0.000                    | 592 / 5.173                    | 618 / 5.509                                                  | 497 / 4.519                    | - / -                          | 497 / 4.519                    | 574 / 5.314                    | 669 / 6.543                                                      | 650 / 6.500                    | 291 / 3.201                    | 291 / 2.910                    | 4,516 / 39.669                 |
| 2.1.3) End Item: OCS Voice Switch - NonOrganic                           | - / -                          | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | 3 / 4.671                      | 6 / 9.120                                                        | 3 / 4.584                      | 3 / 4.675                      | 41 / 68.552                    | 56 / 91.602                    |
| 2.1.4) End Item: ECS Voice Switch - NonOrganic                           | - / -                          | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | 3 / 1.200                      | 5 / 2.040                                                        | 3 / 1.221                      | 3 / 1.245                      | 28 / 11.623                    | 42 / 17.329                    |
| Subtotal: Recurring                                                      | - / 0.000                      | - / 5.173                      | - / 5.509                                                    | - / 4.519                      | - / -                          | - / 4.519                      | - / 11.185                     | - / 17.703                                                       | - / 12.305                     | - / 9.121                      | - / 83.085                     | - / 148.600                    |
| Subtotal: CB080 NAS Voice System (NVS)                                   | 334 / 0.000                    | 592 / 5.173                    | 618 / 5.509                                                  | 497 / 4.519                    | - / -                          | 497 / 4.519                    | 580 / 11.185                   | 680 / 17.703                                                     | 656 / 12.305                   | 297 / 9.121                    | 360 / 83.085                   | 4,614 / 148.600                |
| Subtotal: Procurement, All Modification Items                            | - / 0.000                      | - / 5.173                      | - / 5.509                                                    | - / 4.519                      | - / -                          | - / 4.519                      | - / 11.185                     | - / 17.703                                                       | - / 12.305                     | - / 9.121                      | - / 83.085                     | - / 148.600                    |
| Support (All Modification Items)                                         |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| 3.1) Integrated Logistics Support                                        | - / -                          | - / 0.180                      | - / 0.220                                                    | - / 0.200                      | - / -                          | - / 0.200                      | - / 0.260                      | - / 0.200                                                        | - / 0.220                      | - / 0.220                      | Continuing                     | Continuing                     |
| 3.2) Production Engineering                                              | - / -                          | - / 0.310                      | - / 0.443                                                    | - / 0.447                      | - / -                          | - / 0.447                      | - / 0.469                      | - / 0.452                                                        | - / 0.470                      | - / 0.470                      | Continuing                     | Continuing                     |
| Subtotal: Support                                                        | - / 0.000                      | - / 0.490                      | - / 0.663                                                    | - / 0.647                      | - / -                          | - / 0.647                      | - / 0.729                      | - / 0.652                                                        | - / 0.690                      | - / 0.690                      | Continuing                     | Continuing                     |
| Installation                                                             |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Modification Item 1 of 1: CB080 NAS Voice System (NVS)                   | - / 0.000                      | - / 0.687                      | - / 1.336                                                    | - / 1.423                      | - / 0.000                      | - / 1.423                      | - / 2.517                      | - / 4.971                                                        | - / 9.666                      | - / 6.310                      | - / 48.364                     | - / 75.274                     |
| Subtotal: Installation                                                   | - / 0.000                      | - / 0.687                      | - / 1.336                                                    | - / 1.423                      | - / -                          | - / 1.423                      | - / 2.517                      | - / 4.971                                                        | - / 9.666                      | - / 6.310                      | - / 48.364                     | - / 75.274                     |
| Total                                                                    |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                        | 0.000                          | 6.350                          | 7.508                                                        | 6.589                          | 0.000                          | 6.589                          | 14.431                         | 23.326                                                           | 22.661                         | 16.121                         | Continuing                     | Continuing                     |
|                                                                          |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |                                |

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|-------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|--------------------------------------------|-----------|-----------|----------------|-----------|-------------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                        |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                          |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                   |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                |                |                                            |           |           |                |           | <b>Modification Number / Title:</b><br>9 / CB080 NAS Voice System (NVS) |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                           |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                | <b>MDAP/MAIS Code:</b>                     |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CB080 NAS Voice System (NVS)                                                     |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                   |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: General Dynamics                                                                               |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                | Manufacturer Location: Scottsdale, Arizona |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                            |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                | Production Leadtime (in Months): 12        |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                      |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                      |                                |                                |                                | <b>FY 2020</b> |                                            |           |           | <b>FY 2021</b> |           |                                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                    |            | Mar 2017                       |                                |                                |                                | Mar 2018                       |                                |                                |                                | Mar 2019                                                            |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                    |            | Mar 2018                       |                                |                                |                                | Mar 2019                       |                                |                                |                                | Mar 2020                                                            |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                   |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT: Installation Name: End Item:: Installation Name: End Item: Radios           |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                          |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                                      | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                       |            | - / -                          | 334 / 0.687                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | 0 / 0.000                      | 334 / 0.687                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                           |            | - / -                          | - / -                          | 592 / 0.959                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | 0 / 0.000                      | 592 / 0.959                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                           |            | - / -                          | - / -                          | 0 / 0.377                      | 618 / 1.023                    | 0 / 0.000                      | 618 / 1.023                    | - / -                          | - / -                          | - / -                                                               | - / -                          | 0 / 0.000                      | 618 / 1.400                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                           |            | - / -                          | - / -                          | - / -                          | 0 / 0.400                      | 0 / 0.000                      | 0 / 0.400                      | 497 / 0.759                    | - / -                          | - / -                                                               | - / -                          | 0 / 0.000                      | 497 / 1.159                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                           |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.408                      | 574 / 0.962                    | - / -                                                               | - / -                          | 0 / 0.000                      | 574 / 1.370                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                           |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.416                      | 669 / 1.606                                                         | - / -                          | 0 / 0.000                      | 669 / 2.022                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                           |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.423                                                           | 650 / 1.606                    | 0 / 0.000                      | 650 / 2.029                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                           |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | 0 / 0.520                      | 291 / 1.606                    | 291 / 2.126                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | 291 / 0.728                    | 291 / 0.728                    |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                             |            | - / -                          | 334 / 0.687                    | 592 / 1.336                    | 618 / 1.423                    | 0 / 0.000                      | 618 / 1.423                    | 497 / 1.167                    | 574 / 1.378                    | 669 / 2.029                                                         | 650 / 2.126                    | 582 / 2.334                    | 4,516 / 12.480                 |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                      |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                      |                                |                                |                                | <b>FY 2020</b> |                                            |           |           | <b>FY 2021</b> |           |                                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                   |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                           | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                  | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                               | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                | -          | -                              | 112                            | 111                            | 111                            | -                              | 198                            | 197                            | 197                            | -                                                                   | 206                            | 206                            | 206                            | -              | 167                                        | 166       | 164       | -              | 192       | 192                                                                     | 190       | -              | 223       | 223       | 223       | -              | 222       | 223       | 205       | 582       | 4,516      |
| Out                                                                                                               | -          | -                              | -                              | 167                            | 167                            | -                              | -                              | 297                            | 295                            | -                                                                   | -                              | 309                            | 309                            | -              | -                                          | 250       | 247       | -              | -         | 292                                                                     | 282       | -              | -         | 334       | 335       | -              | -         | 334       | 316       | 582       | 4,516      |
| <b>Method of Implementation:</b> AIT: Installation Name: End Item:: Installation Name: End Item: OCS Voice Switch |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                     |                                |                                |                                |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                          |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                                      | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                       |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          |                |                                            |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |

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|-------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------------------------------------------|---------------------------------------|---------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                        |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                              |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                   |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>9 / CB080 NAS Voice System (NVS) |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                           |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                                                  |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CB080 NAS Voice System (NVS)                                                     |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                   |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT: Installation Name: End Item:: Installation Name: End Item: OCS Voice Switch |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                          | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                          | <b>To Complete</b>                    | <b>Total</b>                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | 0 / 0.750                             | 3 / 0.861                             | - / -                                 | - / -                                                                   | 0 / 0.000                             | 3 / 1.611                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | 0 / 1.300                             | 6 / 5.352                             | - / -                                                                   | 0 / 0.000                             | 6 / 6.652                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | 0 / 0.750                             | 3 / 2.250                                                               | 0 / 0.000                             | 3 / 3.000                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 0 / 0.750                                                               | 3 / 2.723                             | 3 / 3.473                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | 41 / 37.269                           | 41 / 37.269                           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | 0 / 0.750                             | 3 / 2.161                             | 6 / 6.102                             | 3 / 3.000                                                               | 44 / 39.992                           | 56 / 52.005                           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                      |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   | <b>PYS</b>                            | <b>FY 2017</b>                        |                                       |                                       |                                                                     | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                          |                                       |                                       |           | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                   |                                       | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                                                           | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                               | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                | -                                     | -                                     | -                                     | -                                     | -                                                                   | -                                     | -                                     | -                                     | -                                     | -                                                                       | -                                     | -                                     | -         | -              | -         | -         | -         | -              | 1         | 1         | 1         | -              | 2         | 2         | 2         | -              | 1         | 1         | 1         | 44        | 56         |
| Out                                                                                                               | -                                     | -                                     | -                                     | -                                     | -                                                                   | -                                     | -                                     | -                                     | -                                     | -                                                                       | -                                     | -                                     | -         | -              | -         | -         | -         | -              | 1         | 2         | -         | -              | -         | 2         | 4         | -              | 1         | 1         | 1         | 44        | 56         |
| <b>Method of Implementation:</b> AIT: Installation Name: End Item:: Installation Name: End Item: ECS Voice Switch |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                          | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                          | <b>To Complete</b>                    | <b>Total</b>                          |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | 0 / 0.600                             | 3 / 0.552                             | - / -                                 | - / -                                                                   | 0 / 0.000                             | 3 / 1.152                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | 0 / 0.880                             | 5 / 0.935                             | - / -                                                                   | 0 / 0.000                             | 5 / 1.815                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | 0 / 0.600                             | 3 / 0.572                                                               | 0 / 0.000                             | 3 / 1.172                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 0 / 0.612                                                               | 3 / 0.584                             | 3 / 1.196                             |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | 28 / 5.454                            | 28 / 5.454                            |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | 0 / 0.600                             | 3 / 1.432                             | 5 / 1.535                             | 3 / 1.184                                                               | 31 / 6.038                            | 42 / 10.789                           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |

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|------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------|---------|---------|---------|---------|---------|---------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|---|---|----|----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                        |     | Date: February 2018                                          |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                   |     | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| Modification Number / Title:<br>9 / CB080 NAS Voice System (NVS)                                           |     |                                                              |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                           |     | MDAP/MAIS Code:                                              |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| Modification Item 1 of 1: CB080 NAS Voice System (NVS)                                                     |     |                                                              |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| Installation Information                                                                                   |     |                                                              |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: ECS Voice Switch |     |                                                              |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
| Installation Schedule                                                                                      |     |                                                              |         |         |         |         |         |         |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
|                                                                                                            | PYS | FY 2017                                                      | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | TC | Tot |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |   |   |    |    |
|                                                                                                            |     | Q1                                                           | Q2      | Q3      | Q4      | Q1      | Q2      | Q3      | Q4 | Q1  | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | TC | Tot |   |   |    |    |
| In                                                                                                         | -   | -                                                            | -       | -       | -       | -       | -       | -       | -  | -   | -  | -  | -  | -  | -  | -  | -  | -  | 3  | -  | -  | -  | 3  | 2  | -  | -  | 1   | 1 | 1 | 31 | 42 |
| Out                                                                                                        | -   | -                                                            | -       | -       | -       | -       | -       | -       | -  | -   | -  | -  | -  | -  | -  | -  | -  | -  | -  | 3  | -  | -  | 1  | 2  | 2  | -  | 1   | 1 | 1 | 31 | 42 |

**Footnotes:**  
(19) End Item costs are based on current FAA contract pricing. Inventory objective is 4,516. Advanced Planning (AP) costs for installation occur 1 year prior to actual install and show as quantity zero

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|----------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                       |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>10 / CB090 - DAAS Tech Refresh Upgrade II |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                  |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                   | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.000              | 0.000          | 0.000          | 0.000                                                               | 0.000              | 0.000                | 0.000                  | 0.552          | 3.440          | 9.054                                                                            | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.000              | 0.000          | 0.000          | 0.000                                                               | 0.000              | 0.000                | 0.000                  | 0.552          | 3.440          | 9.054                                                                            | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                        | <b>0.000</b>       | <b>0.000</b>         | <b>0.000</b>           | <b>0.552</b>   | <b>3.440</b>   | <b>9.054</b>                                                                     | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                  |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| <p><b>Description:</b></p> <p>The Standard Terminal Automation Replacement System (STARS) is a joint (DoD) and Department of Transportation Federal Aviation Administration (FAA) program to modernize terminal air traffic control systems. The DoD version of STARS, DoD Advanced Automation System (DAAS), must be upgraded to ensure continued compliance with FAA NextGen requirements in order to continue participation in the National Airspace System (NAS). Currently fielded STARS COTS equipment/software are experiencing obsolescence and information assurance (IA) issues. The DAAS Tech Refresh Upgrades will address these obsolescence and IA issues as well as maintain compatibility with the FAA's Next Generation (NextGen) Air Transportation System initiatives. Inventory objective is 40.</p> <p>The DAAS Tech Refresh Upgrade II efforts will implement Engineering Change Proposals (ECPs) defined under cost element CB010 (DoD Advanced Automation System (DAAS)) of this budget. The nature of this consolidation creates an interdependency between CB010 and CB090 that addresses obsolescence and IA issues that render the current hardware and software unsupportable. Both hardware and software for these two cost elements overlap requiring concurrent efforts. Delay or interruption to either CB010 and /or CB090 causes a break in fleet capability and negatively impacts both safety of flight and Air Traffic Controller workload. CB090 is a follow-on to CB050 (STARS Tech Refresh Upgrade) which will complete procurements in FY20.</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                  |                    |                   |

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|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                       |                                       |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>10 / CB090 - DAAS Tech Refresh Upgrade II |                                       |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                                     |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                  |                                       |                                       |                                       |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                       |                                       | <b>Modification Type:</b> TBD         |                                                                     |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                                                                  |                                       |                                       |                                       |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                   | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |
| <i>Modification Item 1 of 1:</i> CB090 - DAAS Tech Refresh Upgrade II           |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |
| B Kits                                                                          |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |
| Recurring                                                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |
| 2.1.1) End Item - NonOrganic                                                    | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 2 / 2.710                                                                        | 4 / 5.340                             | 34 / 46.070                           | 40 / 54.120                           |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / 2.710                                                                        | - / 5.340                             | - / 46.070                            | - / 54.120                            |
| <i>Subtotal: CB090 - DAAS Tech Refresh Upgrade II</i>                           | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 2 / 2.710                                                                        | 4 / 5.340                             | 34 / 46.070                           | 40 / 54.120                           |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / 2.710                                                                        | - / 5.340                             | - / 46.070                            | - / 54.120                            |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |
| <i>Modification Item 1 of 1:</i> CB090 - DAAS Tech Refresh Upgrade II           | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                           | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                                        | - / 2.970                             | - / 60.587                            | - / 63.557                            |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                            | - / 2.970                             | - / 60.587                            | - / 63.557                            |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                        | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.552</b>                          | <b>3.440</b>                                                                     | <b>9.054</b>                          | <b>Continuing</b>                     | <b>Continuing</b>                     |



## UNCLASSIFIED

|                                                                                 |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|------------------------------------|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                                     |                                |                                | <b>Date:</b> February 2018         |                                                                                  |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                    | <b>Modification Number / Title:</b><br>10 / CB090 - DAAS Tech Refresh Upgrade II |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                     |                                |                                | <b>MDAP/MAIS Code:</b>             |                                                                                  |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> CB090 - DAAS Tech Refresh Upgrade II           |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                 |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| Manufacturer Name: TBD                                                          |                                |                                |                                |                                                                     |                                |                                | Manufacturer Location: TBD         |                                                                                  |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                          |                                |                                |                                |                                                                     |                                |                                | Production Leadtime (in Months): 0 |                                                                                  |                                |                                |                                |                                |
| <b>Dates</b>                                                                    | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                     |                                                                                  |                                |                                |                                |                                |
| Contract Dates                                                                  |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| Delivery Dates                                                                  |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| Manufacturer Name: TBD                                                          |                                |                                |                                |                                                                     |                                |                                | Manufacturer Location: TBD         |                                                                                  |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                          |                                |                                |                                |                                                                     |                                |                                | Production Leadtime (in Months): 0 |                                                                                  |                                |                                |                                |                                |
| <b>Dates</b>                                                                    | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                     |                                                                                  |                                |                                |                                |                                |
| Contract Dates                                                                  |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| Delivery Dates                                                                  |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| <b>Installation Information</b>                                                 |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: End Item |                                |                                |                                |                                                                     |                                |                                |                                    |                                                                                  |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                        | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                     | <b>FY 2021</b>                                                                   | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)     | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | 2 / 2.970                      | 0 / 0.000                      | 2 / 2.970                      |
| FY 2023                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | 4 / 6.058                      | 4 / 6.058                      |
| To Complete                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | - / -                          | 34 / 54.529                    | 34 / 54.529                    |
| Total                                                                           | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                              | - / -                                                                            | - / -                          | 2 / 2.970                      | 38 / 60.587                    | 40 / 63.557                    |

UNCLASSIFIED

| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|---------|----|----|---------|----|-----|--|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment | <b>Modification Number / Title:</b><br>10 / CB090 - DAAS Tech Refresh Upgrade II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                                                     | <b>MDAP/MAIS Code:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| <b>Modification Item 1 of 1:</b> CB090 - DAAS Tech Refresh Upgrade II           |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| <b>Installation Information</b>                                                 |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: End Item |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| <b>Installation Schedule</b>                                                    |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |         |    |    |         |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
|                                                                                 | PYS                                                                 | <table><tr><th colspan="4">FY 2017</th><th colspan="4">FY 2018</th><th colspan="4">FY 2019</th><th colspan="4">FY 2020</th><th colspan="4">FY 2021</th><th colspan="4">FY 2022</th><th colspan="4">FY 2023</th><th rowspan="2">TC</th><th rowspan="2">Tot</th></tr><tr><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th><th>Q1</th><th>Q2</th><th>Q3</th><th>Q4</th></tr><tr><td>In</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td><td>1</td><td>-</td><td>38</td><td>40</td></tr><tr><td>Out</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td><td>1</td><td>-</td><td>38</td><td>40</td></tr></table> | FY 2017 |         |    |    | FY 2018 |         |    |    | FY 2019 |         |    |    | FY 2020 |         |    |    | FY 2021 |         |    |    | FY 2022 |         |    |    | FY 2023 |    |     |  | TC | Tot | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | In | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - | 38 | 40 | Out | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - | 38 | 40 |
| FY 2017                                                                         |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         | FY 2018 |    |    |         | FY 2019 |    |    |         | FY 2020 |    |    |         | FY 2021 |    |    |         | FY 2022 |    |    |         | FY 2023 |    |    |         | TC | Tot |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Q1                                                                              | Q2                                                                  | Q3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      | Q1      | Q2 | Q3 | Q4      |    |     |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| In                                                                              | -                                                                   | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | 1  | 1  | -       | 38 | 40  |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Out                                                                             | -                                                                   | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | -  | -  | -       | -       | 1  | 1  | -       | 38 | 40  |  |    |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                               |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>11 / CB100 TAS Tech Refresh Upgrade II |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 0.000       | 0.000   | 0.000   | 0.400        | 0.000       | 0.400           | 2.197   | 2.780   | 2.815   | 2.856   | Continuing  | Continuing |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 0.000       | 0.000   | 0.000   | 0.400        | 0.000       | 0.400           | 2.197   | 2.780   | 2.815   | 2.856   | Continuing  | Continuing |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 0.000       | 0.000   | 0.000   | 0.400        | 0.000       | 0.400           | 2.197   | 2.780   | 2.815   | 2.856   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

The AN/FYC-22 Visual Information Display System (VIDS) is the Navy developed/owned system that meets the NAS Mod Tower Automation System (TAS) requirements. The Tower Automation System (TAS) COTS equipment is suffering from obsolescence and Information Assurance (IA) issues. The TAS Tech Refresh Upgrades will address these obsolescence and IA issues as well as maintain compatibility with the FAA's Next Generation (NextGen) Air Transportation System initiatives. In order to achieve the modernization of the National Airspace System envisioned by NextGen, the FAA is developing a Terminal Flight Data Management (TFDM) platform that integrates flight data systems and decision tools. The TFDM program is an integrated approach to maximize the efficient collection, distribution, and update of data and improve access to information necessary for the safe and efficient control of air traffic. The TAS will be upgraded to be consistent with the FAA TFDM. The inventory objective is 56.

The TAS Tech Refresh Upgrade II efforts will implement Engineering Change Proposals (ECPs) defined under cost element CB040 (Tower Automation System (TAS)) of this budget. The nature of this consolidation creates an interdependency between CB040 and CB100 that addresses obsolescence and IA issues that render the current hardware and software unsupportable. Both hardware and software for these two cost elements overlap requiring concurrent efforts. Delay or interruption to either CB040 and /or CB100 causes a break in fleet capability and negatively impacts both safety of flight and Air Traffic Controller workload. CB100 is a follow-on to CB070 (TAS Tech Refresh) which will complete procurements in FY20

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                    |                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>11 / CB100 TAS Tech Refresh Upgrade II |                                       |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                                                               |                                       |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                         |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                       |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                                                               |                                       |                                       |                                       |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                 | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                         | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                              |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> CB100 TAS Tech Refresh Upgrade II              |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| B Kits                                                                          |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| Recurring                                                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| 2.1.1) End Item - NonOrganic                                                    | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | 5 / 1.590                             | 5 / 1.570                             | 5 / 1.620                                                                     | 5 / 1.650                             | 36 / 12.118                           | 56 / 18.548                           |  |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / 1.590                             | - / 1.570                             | - / 1.620                                                                     | - / 1.650                             | - / 12.118                            | - / 18.548                            |  |
| <i>Subtotal: CB100 TAS Tech Refresh Upgrade II</i>                              | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | 5 / 1.590                             | 5 / 1.570                             | 5 / 1.620                                                                     | 5 / 1.650                             | 36 / 12.118                           | 56 / 18.548                           |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / 1.590                             | - / 1.570                             | - / 1.620                                                                     | - / 1.650                             | - / 12.118                            | - / 18.548                            |  |
| <b>Support (All Modification Items)</b>                                         |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| 3.2) Production Engineering                                                     | - / -                                 | - / -                                 | - / -                                 | - / 0.400                                                           | - / -                                 | - / 0.400                             | - / 0.456                             | - / 0.459                             | - / 0.434                                                                     | - / 0.442                             | Continuing                            | Continuing                            |  |
| <i>Subtotal: Support</i>                                                        | - / 0.000                             | - / -                                 | - / -                                 | - / 0.400                                                           | - / -                                 | - / 0.400                             | - / 0.456                             | - / 0.459                             | - / 0.434                                                                     | - / 0.442                             | Continuing                            | Continuing                            |  |
| <b>Installation</b>                                                             |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> CB100 TAS Tech Refresh Upgrade II              | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                           | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.600                             | - / 0.610                                                                     | - / 0.610                             | - / 5.795                             | - / 17.615                            |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / 0.600                             | - / 0.610                                                                     | - / 0.610                             | - / 5.795                             | - / 17.615                            |  |
| <b>Total</b>                                                                    |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                               |                                       |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.400</b>                                                        | <b>0.000</b>                          | <b>0.400</b>                          | <b>2.197</b>                          | <b>2.780</b>                          | <b>2.815</b>                                                                  | <b>2.856</b>                          | <b>Continuing</b>                     | <b>Continuing</b>                     |  |

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|---------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|-------------------------------------------------------------------------------|-----------|----------------|----------------|-----------|----------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018         |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |            |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                |                                |                                    |                                |                                |                                |                | <b>Modification Number / Title:</b><br>11 / CB100 TAS Tech Refresh Upgrade II |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>             |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CB100 TAS Tech Refresh Upgrade II              |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                 |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: TBD                                                          |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | Manufacturer Location: TBD         |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 0                                          |            |                                |                                |                                |                                                                     |                                |                                |                                |                                | Production Leadtime (in Months): 0 |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                    |            | <b>FY 2017</b>                 |                                |                                | <b>FY 2018</b>                                                      |                                |                                | <b>FY 2019</b>                 |                                |                                    | <b>FY 2020</b>                 |                                |                                | <b>FY 2021</b> |                                                                               |           | <b>FY 2022</b> |                |           | <b>FY 2023</b> |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                  |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                  |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                 |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: End Item |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                        |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                     | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                 |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                     |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          | - / -                          |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          | - / -                          |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          | - / -                          |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | - / -                          | - / -                          |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | 5 / 0.600                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.600      |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | 5 / 0.610                          | - / -                          | - / -                          | 0 / 0.000                      | 5 / 0.610      |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | 5 / 0.610                      | 0 / 0.610                      | 5 / 1.220                      |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | 5 / 0.632                      | 5 / 0.632                      |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                     |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                              | - / -                          | 36 / 4.553                     | 36 / 4.553                     |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                           |            | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | 5 / 0.600                          | 5 / 0.610                      | 5 / 0.610                      | 41 / 5.795                     | 56 / 7.615     |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                    |            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                    |                                |                                |                                |                |                                                                               |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                     |                                |                                |                                | <b>FY 2020</b> |                                                                               |           |                | <b>FY 2021</b> |           |                |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                 |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                          | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                                     | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                              | -          | -                              | -                              | -                              | -                                                                   | -                              | -                              | -                              | -                              | -                                  | -                              | -                              | -                              | -              | -                                                                             | -         | -              | -              | -         | 3              | 2         | -              | 2         | 2         | 1         | -              | 2         | 2         | 1         | 41        | 56         |
| Out                                                                             | -          | -                              | -                              | -                              | -                                                                   | -                              | -                              | -                              | -                              | -                                  | -                              | -                              | -                              | -              | -                                                                             | -         | -              | -              | -         | 3              | 2         | -              | 2         | 2         | 1         | -              | 2         | 2         | 1         | 41        | 56         |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                   |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>12 / X1036 AN/FPN-63 PAR TECH REFRESH |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                              |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                               | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                            | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 9.847          | 8.471          | 9.422                                                               | 0.000              | 9.422                | 10.042                 | 10.154         | 9.618          | 9.709                                                                        | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                            | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.000              | 9.847          | 8.471          | 9.422                                                               | 0.000              | 9.422                | 10.042                 | 10.154         | 9.618          | 9.709                                                                        | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                            | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>0.000</b>       | <b>9.847</b>   | <b>8.471</b>   | <b>9.422</b>                                                        | <b>0.000</b>       | <b>9.422</b>         | <b>10.042</b>          | <b>10.154</b>  | <b>9.618</b>   | <b>9.709</b>                                                                 | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                              |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                            | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                            | -                  | -                 |
| <p><b>Description:</b></p> <p>This Engineering Change Proposal (ECP) constitutes Block 2 and 3 of the Service Life Extension Program for the AN/FPN-63. It will extend the service life to at least 2025 by replacing obsolete receiver/transmitter assemblies, radar video processors, and controller displays with state-of-the-art assemblies/displays. This upgrade will also correct numerous human factors issues. This ECP will be accomplished on 36 deployed AN/FPN-63 Precision Approach Radar (PAR) Systems.</p> <p>Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2846.</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                              |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                   |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>12 / X1036 AN/FPN-63 PAR TECH REFRESH |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                              |                                |                                |  |
| <b>Models of Systems Affected:</b> Shore Sites                                  |                                |                                |                                | <b>Modification Type:</b> Reliability                               |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                              |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                               | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| <i>Modification Item 1 of 1:</i> X1036 AN/FPN-63 PAR TECH REFRESH               |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| 1.1.1) X1036 - PAR Tech Refresh - NonOrganic <sup>(20)</sup>                    | 5 / 0.000                      | 2 / 4.269                      | 2 / 4.642                      | 3 / 6.247                                                           | - / -                          | 3 / 6.247                      | 3 / 6.341                      | 3 / 6.483                      | 3 / 6.630                      | 3 / 6.749                                                                    | 16 / 33.496                    | 40 / 74.857                    |  |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                      | - / 4.269                      | - / 4.642                      | - / 6.247                                                           | - / -                          | - / 6.247                      | - / 6.341                      | - / 6.483                      | - / 6.630                      | - / 6.749                                                                    | - / 33.496                     | - / 74.857                     |  |
| <i>Subtotal: X1036 AN/FPN-63 PAR TECH REFRESH</i>                               | 5 / 0.000                      | 2 / 4.269                      | 2 / 4.642                      | 3 / 6.247                                                           | - / -                          | 3 / 6.247                      | 3 / 6.341                      | 3 / 6.483                      | 3 / 6.630                      | 3 / 6.749                                                                    | 16 / 33.496                    | 40 / 74.857                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                      | - / 4.269                      | - / 4.642                      | - / 6.247                                                           | - / -                          | - / 6.247                      | - / 6.341                      | - / 6.483                      | - / 6.630                      | - / 6.749                                                                    | - / 33.496                     | - / 74.857                     |  |
| <b>Support (All Modification Items)</b>                                         |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| 2.1) Integrated Logistics Support                                               | - / -                          | - / 0.405                      | - / 0.411                      | - / 0.411                                                           | - / -                          | - / 0.411                      | - / 0.400                      | - / 0.400                      | - / 0.150                      | - / 0.075                                                                    | Continuing                     | Continuing                     |  |
| 2.2) Production Engineering <sup>(21)</sup>                                     | - / -                          | - / 1.690                      | - / 1.722                      | - / 1.038                                                           | - / -                          | - / 1.038                      | - / 0.677                      | - / 0.599                      | - / 0.118                      | - / 0.118                                                                    | Continuing                     | Continuing                     |  |
| 2.3) Quality Assurance                                                          | - / -                          | - / 0.030                      | - / 0.030                      | - / 0.030                                                           | - / -                          | - / 0.030                      | - / 0.035                      | - / 0.035                      | - / 0.035                      | - / 0.035                                                                    | Continuing                     | Continuing                     |  |
| <i>Subtotal: Support</i>                                                        | - / 0.000                      | - / 2.125                      | - / 2.163                      | - / 1.479                                                           | - / -                          | - / 1.479                      | - / 1.112                      | - / 1.034                      | - / 0.303                      | - / 0.228                                                                    | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| <i>Modification Item 1 of 1:</i> X1036 AN/FPN-63 PAR TECH REFRESH               | - / 0.000                      | - / 3.453                      | - / 1.666                      | - / 1.696                                                           | - / 0.000                      | - / 1.696                      | - / 2.589                      | - / 2.637                      | - / 2.685                      | - / 2.732                                                                    | - / 12.683                     | - / 30.141                     |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                      | - / 3.453                      | - / 1.666                      | - / 1.696                                                           | - / -                          | - / 1.696                      | - / 2.589                      | - / 2.637                      | - / 2.685                      | - / 2.732                                                                    | - / 12.683                     | - / 30.141                     |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                              |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                   | <b>9.847</b>                   | <b>8.471</b>                   | <b>9.422</b>                                                        | <b>0.000</b>                   | <b>9.422</b>                   | <b>10.042</b>                  | <b>10.154</b>                  | <b>9.618</b>                   | <b>9.709</b>                                                                 | <b>Continuing</b>              | <b>Continuing</b>              |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                          |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |           |                                |           |                                |                                           |                                |           |                                |           | <b>Modification Number / Title:</b><br>12 / X1036 AN/FPN-63 PAR TECH REFRESH |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                    |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> X1036 AN/FPN-63 PAR TECH REFRESH                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: MOOG                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Manufacturer Location: Salt Lake City, UT |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Production Leadtime (in Months): 13       |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                               |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                           |                                |           | <b>FY 2021</b>                 |           |                                                                              |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                             |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           | Dec 2018                                                            |           |                                |           | Dec 2019                       |                                           |                                |           | Dec 2020                       |           |                                                                              |           | Dec 2021                       |           |                                |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                             |            | Jan 2018                       |           |                                |           | Jan 2019                       |           |                                |           | Jan 2020                                                            |           |                                |           | Jan 2021                       |                                           |                                |           | Jan 2022                       |           |                                                                              |           | Jan 2023                       |           |                                |           | Jan 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team:: Installation Name: X1036 - PAR Tech Refresh                                                                                                                                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                  |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                               |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | 5 / 3.453                      |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                        |           | 0 / 0.000                      |           | 5 / 3.453                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | 2 / 1.666                      |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                        |           | 0 / 0.000                      |           | 2 / 1.666                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | 2 / 1.696                      |           | 0 / 0.000                                                           |           | 2 / 1.696                      |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                        |           | 0 / 0.000                      |           | 2 / 1.696                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | 3 / 2.589                      |                                           | - / -                          |           | - / -                          |           | - / -                                                                        |           | 0 / 0.000                      |           | 3 / 2.589                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | 3 / 2.637                      |           | - / -                          |           | - / -                                                                        |           | 0 / 0.000                      |           | 3 / 2.637                      |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | 3 / 2.685                      |           | - / -                                                                        |           | 0 / 0.000                      |           | 3 / 2.685                      |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | 3 / 2.732                                                                    |           | 0 / 0.000                      |           | 3 / 2.732                      |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                        |           | 3 / 2.108                      |           | 3 / 2.108                      |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                        |           | 16 / 10.575                    |           | 16 / 10.575                    |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | 5 / 3.453                      |           | 2 / 1.666                      |           | 2 / 1.696                      |           | 0 / 0.000                                                           |           | 2 / 1.696                      |           | 3 / 2.589                      |                                           | 3 / 2.637                      |           | 3 / 2.685                      |           | 3 / 2.732                                                                    |           | 19 / 12.683                    |           | 40 / 30.141                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                            | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                           |                                |           | <b>FY 2021</b>                 |           |                                                                              |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                            |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                 | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                    | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                         | -          | -                              | -         | 2                              | 3         | -                              | 1         | 1                              | -         | -                                                                   | 1         | 1                              | -         | -                              | 1                                         | 1                              | 1         | -                              | 1         | 1                                                                            | 1         | -                              | 1         | 1                              | 1         | -              | 1         | 1         | 1         | 19        | 40         |
| Out                                                                                                                                                                                                                                                                                                                                                                        | -          | -                              | -         | 2                              | 3         | -                              | 1         | 1                              | -         | -                                                                   | 1         | 1                              | -         | -                              | 1                                         | 1                              | 1         | -                              | 1         | 1                                                                            | 1         | -                              | 1         | 1                              | 1         | -              | 1         | 1         | 1         | 19        | 40         |
| <b>Footnotes:</b><br><sup>(20)</sup> The decrease in unit cost between FY18 and FY19 is due to the procurement of 50% more items in FY19 than FY18, thus providing a quantity discount in FY19.<br><sup>(21)</sup> Production Engineering increase in FY19 is due to increased engineering work required to extend the operability and safety of the old AN/FPN-63 systems |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                              |           |                                |           |                                |           |                |           |           |           |           |            |



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|---------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|--|----------------------------|---------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  |  | <b>Date:</b> February 2018 |                                                               |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |  |  |                            | <b>Modification Number / Title:</b><br>13 / X1037 ILS Upgrade |  |  |  |

|                                                         |  |  |  |  |  |  |                        |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|--|------------------------|--|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|--|------------------------|--|--|--|--|

| Resource Summary                                          | Prior Years  | FY 2017      | FY 2018      | FY 2019 Base | FY 2019 OCO  | FY 2019 Total | FY 2020      | FY 2021      | FY 2022      | FY 2023      | To Complete       | Total             |
|-----------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )             | -            | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )        | 0.000        | 1.901        | 4.752        | 6.438        | 0.000        | 6.438         | 6.492        | 6.421        | 8.981        | 9.508        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )     | -            | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )           | 0.000        | 1.901        | 4.752        | 6.438        | 0.000        | 6.438         | 6.492        | 6.421        | 8.981        | 9.508        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )     | -            | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b> | <b>0.000</b> | <b>1.901</b> | <b>4.752</b> | <b>6.438</b> | <b>0.000</b> | <b>6.438</b>  | <b>6.492</b> | <b>6.421</b> | <b>8.981</b> | <b>9.508</b> | <b>Continuing</b> | <b>Continuing</b> |

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

|                                                        |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Spares ( <i>\$ in Millions</i> )               | - | - | - | - | - | - | - | - | - | - | - | - |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> ) | - | - | - | - | - | - | - | - | - | - | - | - |

## Description:

The Instrument Landing System (nomenclature TBD contract award) is an automated self-contained system providing precision approach to the air station runways for ILS equipped aircraft, thus reducing manpower required for ground personnel.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2846.

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|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                                              |                                |                                |                                |                                | Date: February 2018                                    |                                |                                |                                |                                |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9 |                                |                                | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                |                                |                                |                                | Modification Number / Title:<br>13 / X1037 ILS Upgrade |                                |                                |                                |                                |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                                              |                                |                                |                                | MDAP/MAIS Code:                |                                                        |                                |                                |                                |                                |            |
| Models of Systems Affected: [No Model Specified]                         |                                |                                | Modification Type: TBD                                       |                                |                                |                                |                                | Related RDT&E PEs:                                     |                                |                                |                                |                                |            |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                                                      | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                | FY 2022                        | FY 2023                        | To Complete                    | Total                          |            |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |            |
| Procurement                                                              |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| Modification Item 1 of 1: X1037 ILS Upgrade                              |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| B Kits                                                                   |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| Recurring                                                                |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| 1.1.1) ILS Upgrades - NonOrganic <sup>(22)</sup>                         |                                | - / -                          | 1 / 0.392                                                    | 2 / 0.737                      | 2 / 0.750                      | - / -                          | 2 / 0.750                      | 2 / 0.750                                              | 3 / 1.128                      | 3 / 1.134                      | 3 / 1.237                      | Continuing                     | Continuing |
| Subtotal: Recurring                                                      |                                | - / 0.000                      | - / 0.392                                                    | - / 0.737                      | - / 0.750                      | - / -                          | - / 0.750                      | - / 0.750                                              | - / 1.128                      | - / 1.134                      | - / 1.237                      | Continuing                     | Continuing |
| Subtotal: X1037 ILS Upgrade                                              |                                | - / -                          | 1 / 0.392                                                    | 2 / 0.737                      | 2 / 0.750                      | - / -                          | 2 / 0.750                      | 2 / 0.750                                              | 3 / 1.128                      | 3 / 1.134                      | 3 / 1.237                      | Continuing                     | Continuing |
| Subtotal: Procurement, All Modification Items                            |                                | - / 0.000                      | - / 0.392                                                    | - / 0.737                      | - / 0.750                      | - / -                          | - / 0.750                      | - / 0.750                                              | - / 1.128                      | - / 1.134                      | - / 1.237                      | Continuing                     | Continuing |
| Support (All Modification Items)                                         |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| 2.1) Logistics                                                           |                                | - / -                          | - / 0.424                                                    | - / 0.411                      | - / 0.399                      | - / -                          | - / 0.399                      | - / 0.350                                              | - / 0.250                      | - / 0.248                      | - / 0.247                      | Continuing                     | Continuing |
| 2.2) Production Engineering                                              |                                | - / -                          | - / 1.049                                                    | - / 1.072                      | - / 0.517                      | - / -                          | - / 0.517                      | - / 0.392                                              | - / 0.200                      | - / 0.200                      | - / 0.100                      | Continuing                     | Continuing |
| 2.4) Quality Assurance                                                   |                                | - / -                          | - / 0.036                                                    | - / 0.037                      | - / 0.038                      | - / -                          | - / 0.038                      | - / 0.039                                              | - / 0.039                      | - / 0.039                      | - / 0.040                      | Continuing                     | Continuing |
| Subtotal: Support                                                        |                                | - / 0.000                      | - / 1.509                                                    | - / 1.520                      | - / 0.954                      | - / -                          | - / 0.954                      | - / 0.781                                              | - / 0.489                      | - / 0.487                      | - / 0.387                      | Continuing                     | Continuing |
| Installation                                                             |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| Modification Item 1 of 1: X1037 ILS Upgrade                              |                                | - / 0.000                      | - / 0.000                                                    | - / 2.495                      | - / 4.734                      | - / 0.000                      | - / 4.734                      | - / 4.961                                              | - / 4.804                      | - / 7.360                      | - / 7.884                      | - / 8.110                      | - / 40.348 |
| Subtotal: Installation                                                   |                                | - / 0.000                      | - / -                                                        | - / 2.495                      | - / 4.734                      | - / -                          | - / 4.734                      | - / 4.961                                              | - / 4.804                      | - / 7.360                      | - / 7.884                      | - / 8.110                      | - / 40.348 |
| Total                                                                    |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |
| Total Cost (Procurement + Support + Installation)                        |                                | 0.000                          | 1.901                                                        | 4.752                          | 6.438                          | 0.000                          | 6.438                          | 6.492                                                  | 6.421                          | 8.981                          | 9.508                          | Continuing                     | Continuing |
|                                                                          |                                |                                |                                                              |                                |                                |                                |                                |                                                        |                                |                                |                                |                                |            |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|---------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|---------------------------------------------|-----------|--------------------------------|----------------|--------------------------------|---------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                          |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                |           |                                |                |                                             |           |                                |                |                                | <b>Modification Number / Title:</b><br>13 / X1037 ILS Upgrade |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                | <b>MDAP/MAIS Code:</b>                      |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> X1037 ILS Upgrade                                                                                                                                                                          |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: Selex ES                                                                                                                                                                                                 |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                | Manufacturer Location: Overland Park, KS    |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                | Production Leadtime <i>(in Months)</i> : 13 |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                      |                                |           |                                | <b>FY 2020</b> |                                             |           |                                | <b>FY 2021</b> |                                |                                                               |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                              |            | Dec 2016                       |                                |           |                                | Dec 2017       |                                |           |                                | Dec 2018                                                            |                                |           |                                | Dec 2019       |                                             |           |                                | Dec 2020       |                                |                                                               |                                | Dec 2021       |                                |           |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                              |            | Jan 2018                       |                                |           |                                | Jan 2019       |                                |           |                                | Jan 2020                                                            |                                |           |                                | Jan 2021       |                                             |           |                                | Jan 2022       |                                |                                                               |                                | Jan 2023       |                                |           |           | Jan 2024       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: ILS Upgrades                                                                                                                                         |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                    |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                     | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                              |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                               | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                             |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)              |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                               | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | 1 / 2.495                      |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | 0 / 0.000                      |           | 1 / 2.495 |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | 2 / 4.734                      |           | 0 / 0.000                      |                                                                     | 2 / 4.734                      |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | 0 / 0.000                      |           | 2 / 4.734 |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | 2 / 4.961                      |                | - / -                                       |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | 0 / 0.000                      |           | 2 / 4.961 |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | 2 / 4.804                                   |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | 0 / 0.000                      |           | 2 / 4.804 |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                       |           | 3 / 7.360                      |                | - / -                          |                                                               | - / -                          |                | 0 / 0.000                      |           | 3 / 7.360 |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | 3 / 7.884                      |                                                               | - / -                          |                | 0 / 0.000                      |           | 3 / 7.884 |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                     |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | 3 / 8.110                      |           | 3 / 8.110 |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                     | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                               | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                       |            | - / -                          | - / -                          |           | 1 / 2.495                      |                | 2 / 4.734                      |           | 0 / 0.000                      |                                                                     | 2 / 4.734                      |           | 2 / 4.961                      |                | 2 / 4.804                                   |           | 3 / 7.360                      |                | 3 / 7.884                      |                                                               | 3 / 8.110                      |                | 16 / 40.348                    |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                             | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                      |                                |           |                                | <b>FY 2020</b> |                                             |           |                                | <b>FY 2021</b> |                                |                                                               |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                             |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                           | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                   | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                     | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                          | -          | -                              | -                              | -         | -                              | -              | 1                              | -         | -                              | -                                                                   | -                              | 2         | -                              | -              | 1                                           | 1         | -                              | -              | 1                              | 1                                                             | -                              | -              | 1                              | 1         | 1         | 1              | 1         | 1         | -         | 3         | 16         |
| Out                                                                                                                                                                                                                         | -          | -                              | -                              | -         | -                              | -              | 1                              | -         | -                              | -                                                                   | -                              | 2         | -                              | -              | 1                                           | 1         | -                              | -              | 1                              | 1                                                             | -                              | -              | 1                              | 1         | 1         | 1              | 1         | 1         | -         | 3         | 16         |
| <b>Footnotes:</b><br><sup>(22)</sup> Inventory objective is 31. FY17 has been updated for actuals. Each site (airfield, air station, etc.) will have an independent installation cost base on existing site configurations. |            |                                |                                |           |                                |                |                                |           |                                |                                                                     |                                |           |                                |                |                                             |           |                                |                |                                |                                                               |                                |                |                                |           |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|----------------------------|--|-------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                         |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>14 / X1043 TACAN Antenna Upgrade |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 5.351   | 9.077   | 9.576        | 0.000       | 9.576           | 9.622   | 10.011  | 9.477   | 9.633   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 5.351   | 9.077   | 9.576        | 0.000       | 9.576           | 9.622   | 10.011  | 9.477   | 9.633   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 5.351   | 9.077   | 9.576        | 0.000       | 9.576           | 9.622   | 10.011  | 9.477   | 9.633   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

The TACAN Antenna Upgrade program will provide ships and shore installations with a new antenna for TACAN systems. Justification: TACAN is a dated systems with multiple obsolete parts. Modernization of the TACAN antenna is required to reduce maintenance and improve life span in order to meet needs of the Fleet, and provide a stand-alone recovery system for small combatants of the JPALS program restructure.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2846.

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|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                |                                                              |                                |                                |                                | Date: February 2018            |                                                                  |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9 |                                |                                |                                | P-1 Line Item Number / Title:<br>2820 / Ashore ATC Equipment |                                |                                |                                |                                | Modification Number / Title:<br>14 / X1043 TACAN Antenna Upgrade |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                |                                                                  |                                |                                |                                |  |
| Models of Systems Affected: Shore Sites                                  |                                |                                |                                | Modification Type: Modernization                             |                                |                                |                                |                                | Related RDT&E PEs:                                               |                                |                                |                                |  |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                          | FY 2023                        | To Complete                    | Total                          |  |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                              |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| Modification Item 1 of 1: X1043 TACAN Antenna Upgrade                    |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| B Kits                                                                   |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| Recurring                                                                |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| 1.1.1) TACAN Antenna Upgrade - NonOrganic <sup>(23)</sup>                | - / -                          | 11 / 2.532                     | 24 / 5.690                     | 24 / 5.232                                                   | - / -                          | 24 / 5.232                     | 24 / 5.238                     | 24 / 5.501                     | 24 / 5.592                                                       | 24 / 5.712                     | 110 / 45.393                   | 265 / 80.890                   |  |
| Subtotal: Recurring                                                      | - / 0.000                      | - / 2.532                      | - / 5.690                      | - / 5.232                                                    | - / -                          | - / 5.232                      | - / 5.238                      | - / 5.501                      | - / 5.592                                                        | - / 5.712                      | - / 45.393                     | - / 80.890                     |  |
| Subtotal: X1043 TACAN Antenna Upgrade                                    | - / -                          | 11 / 2.532                     | 24 / 5.690                     | 24 / 5.232                                                   | - / -                          | 24 / 5.232                     | 24 / 5.238                     | 24 / 5.501                     | 24 / 5.592                                                       | 24 / 5.712                     | 110 / 45.393                   | 265 / 80.890                   |  |
| Subtotal: Procurement, All Modification Items                            | - / 0.000                      | - / 2.532                      | - / 5.690                      | - / 5.232                                                    | - / -                          | - / 5.232                      | - / 5.238                      | - / 5.501                      | - / 5.592                                                        | - / 5.712                      | - / 45.393                     | - / 80.890                     |  |
| Support (All Modification Items)                                         |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| 2.1) Logistics                                                           | - / -                          | - / 1.931                      | - / 1.095                      | - / 0.561                                                    | - / -                          | - / 0.561                      | - / 0.555                      | - / 0.540                      | - / 0.299                                                        | - / 0.275                      | Continuing                     | Continuing                     |  |
| 2.2) Production Engineering                                              | - / -                          | - / 0.815                      | - / 0.785                      | - / 0.514                                                    | - / -                          | - / 0.514                      | - / 0.523                      | - / 0.618                      | - / 0.162                                                        | - / 0.150                      | Continuing                     | Continuing                     |  |
| 2.3) Quality Assurance                                                   | - / -                          | - / 0.073                      | - / 0.064                      | - / 0.053                                                    | - / -                          | - / 0.053                      | - / 0.042                      | - / 0.040                      | - / 0.040                                                        | - / 0.040                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                        | - / 0.000                      | - / 2.819                      | - / 1.944                      | - / 1.128                                                    | - / -                          | - / 1.128                      | - / 1.120                      | - / 1.198                      | - / 0.501                                                        | - / 0.465                      | Continuing                     | Continuing                     |  |
| Installation                                                             |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| Modification Item 1 of 1: X1043 TACAN Antenna Upgrade                    | - / 0.000                      | - / 0.000                      | - / 1.443                      | - / 3.216                                                    | - / 0.000                      | - / 3.216                      | - / 3.264                      | - / 3.312                      | - / 3.384                                                        | - / 3.456                      | - / 34.778                     | - / 52.853                     |  |
| Subtotal: Installation                                                   | - / 0.000                      | - / -                          | - / 1.443                      | - / 3.216                                                    | - / -                          | - / 3.216                      | - / 3.264                      | - / 3.312                      | - / 3.384                                                        | - / 3.456                      | - / 34.778                     | - / 52.853                     |  |
| Total                                                                    |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                  |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                        | 0.000                          | 5.351                          | 9.077                          | 9.576                                                        | 0.000                          | 9.576                          | 9.622                          | 10.011                         | 9.477                                                            | 9.633                          | Continuing                     | Continuing                     |  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------------------------------------------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2820 / Ashore ATC Equipment |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>14 / X1043 TACAN Antenna Upgrade |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                                                  |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> X1043 TACAN Antenna Upgrade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Manufacturer Name: MOOG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | Manufacturer Location: Salt Lake City, UT |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | Production Leadtime (in Months): 13       |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>FY 2017</b> |                                       |                                       |                                       | <b>FY 2018</b>                                                      |                                       |                                       |                                       | <b>FY 2019</b>                        |                                           |                                       |                                       | <b>FY 2020</b>                        |                                       |                                                                         |           | <b>FY 2021</b> |                |           |           | <b>FY 2022</b> |                |           |           | <b>FY 2023</b> |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Dec 2016       |                                       |                                       |                                       | Dec 2017                                                            |                                       |                                       |                                       | Dec 2018                              |                                           |                                       |                                       | Dec 2019                              |                                       |                                                                         |           | Dec 2020       |                |           |           | Dec 2021       |                |           |           | Dec 2022       |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Jan 2018       |                                       |                                       |                                       | Jan 2019                                                            |                                       |                                       |                                       | Jan 2019                              |                                           |                                       |                                       | Jan 2020                              |                                       |                                                                         |           | Jan 2021       |                |           |           | Jan 2022       |                |           |           | Jan 2023       |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT Installation:: Installation Name: TACAN Antenna Upgrade                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                            | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                   |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                 |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | 11 / 1.443                            | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                     | - / -                                 | 0 / 0.000                             | 11 / 1.443                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | - / -                                 | 24 / 3.216                                                          | 0 / 0.000                             | 24 / 3.216                            | - / -                                 | - / -                                 | - / -                                     | - / -                                 | 0 / 0.000                             | 24 / 3.216                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | 24 / 3.264                            | - / -                                 | - / -                                     | - / -                                 | 0 / 0.000                             | 24 / 3.264                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | 24 / 3.312                            | - / -                                     | - / -                                 | 0 / 0.000                             | 24 / 3.312                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 24 / 3.384                                | - / -                                 | 0 / 0.000                             | 24 / 3.384                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                     | 24 / 3.456                            | 0 / 0.000                             | 24 / 3.456                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                     | 3 / 0.000                             | 21 / 4.706                            | 24 / 4.706                            |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | - / -                                 | - / -                                 | - / -                                 | - / -                                                               | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                     | - / -                                 | 134 / 30.072                          | 134 / 30.072                          |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | - / -                                 | - / -                                 | 11 / 1.443                            | 24 / 3.216                                                          | 0 / 0.000                             | 24 / 3.216                            | 24 / 3.264                            | 24 / 3.312                            | 24 / 3.384                                | 27 / 3.456                            | 155 / 34.778                          | 289 / 52.853                          |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PYS</b>     | <b>FY 2017</b>                        |                                       |                                       |                                                                     | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                            |                                       |                                       |                                       | <b>FY 2020</b>                        |                                                                         |           |                | <b>FY 2021</b> |           |           |                | <b>FY 2022</b> |           |           |                | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                                                           | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                 | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                                                               | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -              | -                                     | -                                     | -                                     | -                                                                   | 5                                     | 4                                     | 2                                     | -                                     | 6                                         | 6                                     | 6                                     | 6                                     | 6                                     | 6                                                                       | 6         | 6              | 6              | 6         | 6         | 6              | 6              | 6         | 6         | 6              | 6              | 9         | 6         | 6         | 155       | 289        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -              | -                                     | -                                     | -                                     | -                                                                   | 5                                     | 4                                     | 2                                     | -                                     | 6                                         | 6                                     | 6                                     | 6                                     | 6                                     | 6                                                                       | 6         | 6              | 6              | 6         | 6         | 6              | 6              | 6         | 6         | 6              | 6              | 9         | 6         | 6         | 155       | 289        |
| <b>Footnotes:</b><br><sup>(23)</sup> Inventory objective is 265. FY18 install 4 Test Beds and 1 shipboard installation. The decrease in unit cost between FY18 and FY19 (and beyond) is due to the program's ability to procure a mixture of new and refurbished antennas beginning in FY19. The refurbished antennas will cost less than the new antennas, thus decreasing the overall average unit cost of 24 systems/year. The exact number of new/refurbished systems each year will not be known until the contract option is exercised for any given year. |                |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                           |                                       |                                       |                                       |                                       |                                                                         |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                       |                                                                     |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years  | FY 2017       | FY 2018       | FY 2019 Base  | FY 2019 OCO  | FY 2019 Total | FY 2020       | FY 2021       | FY 2022       | FY 2023       | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -            | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 0.000        | 29.411        | 44.611        | 47.890        | 0.000        | 47.890        | 49.265        | 51.918        | 52.012        | 53.103        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -            | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 0.000        | 29.411        | 44.611        | 47.890        | 0.000        | 47.890        | 49.265        | 51.918        | 52.012        | 53.103        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -            | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>0.000</b> | <b>29.411</b> | <b>44.611</b> | <b>47.890</b> | <b>0.000</b> | <b>47.890</b> | <b>49.265</b> | <b>51.918</b> | <b>52.012</b> | <b>53.103</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |              |               |               |               |              |               |               |               |               |               |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -            | 1.458         | 0.606         | 0.546         | -            | 0.546         | 0.513         | 0.068         | 0.263         | 1.028         | Continuing        | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                    | -            | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                        | -            | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |

## Description:

Efforts for Shipboard Air Traffic Control (SATC) and Automatic Carrier Landing System (ACLS) were previously funded under BLIs OPN 2831 and OPN 2832, respectively. Beginning in FY 2017, this consolidated line item (OPN 2830, Afloat ATC Equipment) continues efforts previously executed under OPN 2831 and OPN 2832 and is not considered a new start.

### DESCRIPTION:

#### Shipboard Air Traffic Control (SATC):

SATC systems are responsible for safe and expeditious control of air traffic within 50 Nautical Miles of a ship. SATC systems include the air traffic surveillance radar (ASR), AN/SPN43 and the air traffic control processing and display system, AN/TPX-42A(V), which has three major configurations: AN/TPX-42A(V)14/15/16. v14 and v16 configurations comprise of Carrier Air Traffic Control Center - Direct Altitude and Identity Readout (CATCC-DAIR), Amphibious Air Traffic Control Center - Direct Altitude and Identity Readout (AATCC-DAIR); both (V)14 and (V)16 DAIR systems use AN/SPN-43 and Identification Friend or Foe (IFF) inputs to track and control aircraft. The third configuration, AN/TPX-42A(V)15 interfaces with next generation multipurpose radars and IFF to perform the same mission. Obsolescence problems are being addressed through various upgrades in a phased approach. The major upgrades include a series of AN/TPX-42A(V) modification kits requiring various combinations of OL-541processor rehost, track processor upgrade, OD-220 console, audio/video recorder, flat panel display, embedded trainer, and other components to bring the AN/TPX-42A(V)14 system to AN/TPX-42A(V)16 configuration and eventually to the Air Traffic Control Multifunction Console configuration. The ASR capability provided by the AN/SPN-43 radar system is required for NIMITZ Class CVNs and LHA/LHD class ships until the capability is replaced by the AN/SPN-50 Shipboard Air Traffic Radar. Obsolescence problems are being addressed through various upgrades in a phased approach until replaced.

#### Automatic Carrier Landing System (ACLS):

ACLS program comprises three legacy systems (AN/SPN-46, AN/SPN-41, and AN/SPN-35C) that provide the primary and secondary precision electronic guidance for landing suitably equipped aircraft under all weather conditions on CVNs, LHA/LHD class ships, and selected Naval Air Stations. Many of the components in the system have been in service for more than twenty years. This program funds maintainability, reliability, modernization and supportability improvements to existing equipment components that can no longer be maintained, procured or supported, as well as items providing upgraded operational capability. Life Cycle Extension (LCE) sustainment efforts for ACLS systems will be completed to address obsolescence and supportability issues, leverage Commercial Off-The-Shelf (COTS) technology, address cyber-security updates and requirements, and support external system interface requirements. The LCE efforts by system are planned to be conducted in blocks, to address the most critical obsolescence, supportability, and emergent requirements first and to group remaining improvements into logical block upgrade packages that minimize multiple, duplicative repair efforts and reduce costs while delivering hardware in a time phased approach to meet ship maintenance availability schedules.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        | Date: February 2018                                          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        | P-1 Line Item Number / Title:<br>2830 / Afloat ATC Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                          |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                        |                                                              |
| <p>AN/SPN-46 Precision Approach Landing System (PALS) provides aircraft position information to the Final Control Workstation in Carrier Air Traffic Control Center (CATCC), and provides the pilot with the capability of selecting a fully automatic, instrument landing, or talk down approach. This system is certified to provide the carrier with an all-weather flight operational capability. Initial Operational Capability (IOC) of the AN/SPN-46 was in 1985, and the system has exceeded its design life. There are significant obsolescence issues. AN/SPN-46 Block IV upgrade is designed to correct known obsolescence issues in the antenna pedestal, 50KW Ka band modulator/transmitter, and various Circuit Card Assemblies (CCAs). If this effort is not accomplished, replacement parts will not be available to support the system, thereby, negatively affecting Operational Availability (Ao) and safety of flight on the aircraft carrier.</p> <p>AN/SPN-41 Transmitting set provides all weather instrument approach guidance from the ship to the aircraft equipped with AN/ARA-63 Receiver Group. It is a secondary precision electronic landing system and safety of flight back up to provide azimuth and elevation alignment information to suitably equipped aircraft aboard CVN and LHA/LHD class ships. Initial Operational Capability (IOC) of the AN/SPN-41 was in 1970 and the system has exceeded its design life. AN/SPN-41 LCE upgrades include the Transmitter, Coder, Electronics Drawer, and Radome hardware to ensure continued operational availability of and extended the service life of the AN/SPN-41, and is the Joint Precision Approach and Landing System (JPALS) back-up system.</p> <p>AN/SPN-35C is the Precision Approach Radar aboard LHA/LHD class ships and is used for Mode III aircraft recovery which ensures the safe approach and landing of AV-8B and various helicopters during adverse weather and night conditions. Initial Operational Capability (IOC) of the AN/SPN-35C was in 2004. The AN/SPN-35C Block I upgrade includes replacement of common failure items, obsolete components, and analog system components, including the Radar Processor Controller (RPC), the Main Input/Output Processor (MIOP), and replace obsolete Control-Indicator Displays to ensure continued operational availability of and extended the service life of the AN/SPN-35C.</p> <p>Procurement, installations and associated support costs with these efforts prior to FY2017 were funded under BLI 2832.</p> <p>Installing Agent: Shipyards and Alteration Installation Teams.</p> <p>When installation to be made: Selected Restricted Availability (SRA) / Restricted Availability (RAV).</p> <p>Ships or facilities to receive the equipment: CVNs, LHA/LHD class ships, Software Support Activity (NAWCAD, St Inigoes, MD) and various selected shore and training sites.</p> |                                        |                                                              |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                     |                                                                                                             |                    |                                               |                       |                                              |                                                                     |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment |                                                                                                             |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                              |                                                                                                             |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                          |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                  |                                                                                                             |                    |                                               |                       |                                              |                                                                     |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                              |                                                                                                             |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                      | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                   | <b>Title*</b>                                                                                               | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                        | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-3a                                                                                                                                                                                  | 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) (Modernization) |                    |                                               |                       | - / 0.000                                    | - / 8.485                                                           | - / 8.657                                    | - / 8.593                                    | - / 0.000                                    | - / 8.593                                    |
| P-3a                                                                                                                                                                                  | 2 / ACLS MOD KITS SUMMARY PN408 (Modernization)                                                             |                    |                                               |                       | - / 0.000                                    | - / 7.028                                                           | - / 12.064                                   | - / 11.108                                   | - / 0.000                                    | - / 11.108                                   |
| P-3a                                                                                                                                                                                  | 3 / AN/SPN-46 (V)3 Radar Set Group PN413 (Reliability)                                                      |                    |                                               |                       | - / 0.000                                    | - / 6.219                                                           | - / 7.086                                    | - / 3.384                                    | - / 0.000                                    | - / 3.384                                    |
| P-3a                                                                                                                                                                                  | 4 / AN/SPN-41 Transmitter MOD (LCE) PN416 (Modernization)                                                   |                    |                                               |                       | - / 0.000                                    | - / 1.101                                                           | - / 0.499                                    | - / 0.019                                    | - / 0.000                                    | - / 0.019                                    |
| P-3a                                                                                                                                                                                  | 5 / AN/SPN-41 Coder Monitor (LCE) PN417 (Modernization)                                                     |                    |                                               |                       | - / 0.000                                    | - / 1.023                                                           | - / 0.981                                    | - / 0.614                                    | - / 0.000                                    | - / 0.614                                    |
| P-3a                                                                                                                                                                                  | 6 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 (Modernization)                                        |                    |                                               |                       | - / 0.000                                    | - / 2.534                                                           | - / 1.392                                    | - / 1.581                                    | - / 0.000                                    | - / 1.581                                    |
| P-3a                                                                                                                                                                                  | 7 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 (Modernization)                                           |                    |                                               |                       | - / 0.000                                    | - / 1.692                                                           | - / 0.121                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    |
| P-3a                                                                                                                                                                                  | 8 / AN/SPN-46 Block IV (PN420) (TBD)                                                                        |                    |                                               |                       | - / 0.000                                    | - / 1.329                                                           | - / 13.811                                   | - / 21.116                                   | - / 0.000                                    | - / 21.116                                   |
| P-3a                                                                                                                                                                                  | 9 / AN/SPN-35 Block I (PN421) (TBD)                                                                         |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                           | - / 0.000                                    | - / 1.475                                    | - / 0.000                                    | - / 1.475                                    |
| <b>P-40</b>                                                                                                                                                                           | <b>Total Gross/Weapon System Cost</b>                                                                       |                    |                                               |                       | <b>- / 0.000</b>                             | <b>- / 29.411</b>                                                   | <b>- / 44.611</b>                            | <b>- / 47.890</b>                            | <b>- / 0.000</b>                             | <b>- / 47.890</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                              |                                                                                                             |                    |                                               |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                      | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                   | <b>Title*</b>                                                                                               | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                        | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-3a                                                                                                                                                                                  | 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) (Modernization) |                    |                                               |                       | - / 8.560                                    | - / 8.587                                                           | - / 8.738                                    | - / 8.921                                    | Continuing                                   | Continuing                                   |
| P-3a                                                                                                                                                                                  | 2 / ACLS MOD KITS SUMMARY PN408 (Modernization)                                                             |                    |                                               |                       | - / 11.195                                   | - / 19.257                                                          | - / 18.210                                   | - / 22.092                                   | Continuing                                   | Continuing                                   |
| P-3a                                                                                                                                                                                  | 3 / AN/SPN-46 (V)3 Radar Set Group PN413 (Reliability)                                                      |                    |                                               |                       | - / 0.791                                    | - / 0.000                                                           | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 17.480                                   |
| P-3a                                                                                                                                                                                  | 4 / AN/SPN-41 Transmitter MOD (LCE) PN416 (Modernization)                                                   |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                           | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 1.619                                    |
| P-3a                                                                                                                                                                                  | 5 / AN/SPN-41 Coder Monitor (LCE) PN417 (Modernization)                                                     |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                           | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 2.618                                    |
| P-3a                                                                                                                                                                                  | 6 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 (Modernization)                                        |                    |                                               |                       | - / 0.800                                    | - / 0.000                                                           | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 6.307                                    |
| P-3a                                                                                                                                                                                  | 7 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 (Modernization)                                           |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                           | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 1.813                                    |
| P-3a                                                                                                                                                                                  | 8 / AN/SPN-46 Block IV (PN420) (TBD)                                                                        |                    |                                               |                       | - / 22.630                                   | - / 14.602                                                          | - / 14.384                                   | - / 10.307                                   | Continuing                                   | Continuing                                   |
| P-3a                                                                                                                                                                                  | 9 / AN/SPN-35 Block I (PN421) (TBD)                                                                         |                    |                                               |                       | - / 5.289                                    | - / 9.472                                                           | - / 10.680                                   | - / 11.783                                   | Continuing                                   | Continuing                                   |
| <b>P-40</b>                                                                                                                                                                           | <b>Total Gross/Weapon System Cost</b>                                                                       |                    |                                               |                       | <b>- / 49.265</b>                            | <b>- / 51.918</b>                                                   | <b>- / 52.012</b>                            | <b>- / 53.103</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                  |                                                                                                             |                    |                                               |                       |                                              |                                                                     |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                |                                                                                                             |                    |                                               |                       |                                              |                                                                     |                                              |                                              |                                              |                                              |
| <b>Justification:</b><br>FY 2019 funds baseline programs to provide Automatic Carrier Landing System (ACLS) and Shipboard Air Traffic Control (SATC) systems.                         |                                                                                                             |                    |                                               |                       |                                              |                                                                     |                                              |                                              |                                              |                                              |

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|---------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|----------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                                                                                          |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056,<br>MP057, MP058, MP059, MP060) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 8.485   | 8.657   | 8.593        | 0.000       | 8.593           | 8.560   | 8.587   | 8.738   | 8.921   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 8.485   | 8.657   | 8.593        | 0.000       | 8.593           | 8.560   | 8.587   | 8.738   | 8.921   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 8.485   | 8.657   | 8.593        | 0.000       | 8.593           | 8.560   | 8.587   | 8.738   | 8.921   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

This equipment and installation costs on this P-3a are for individual modification programs that do not exceed \$5 million in either budget or \$10 million in three years. This exhibit summarizes procurement and installation for Cost Codes MP052, MP054, MP055, MP056, MP057, MP058, MP059, and MP060. Line item Engineering Changes to Correct Deficiencies captures unanticipated emergent engineering changes.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                               |                                |                                |                                |                                                              |                                |                                |                                | Date: February 2018                                                                                                            |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                          |                                |                                |                                | P-1 Line Item Number / Title:<br>2830 / Afloat ATC Equipment |                                |                                |                                | Modification Number / Title:<br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                  |                                |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                                                                |                                |                                |                                |                                |  |
| Models of Systems Affected: CVNs, LHA/LHD class ships                                                             |                                |                                |                                | Modification Type: Modernization                             |                                |                                |                                | Related RDT&E PEs:                                                                                                             |                                |                                |                                |                                |  |
| Financial Plan                                                                                                    | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                                                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                                                       |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                                                |                                |                                |                                |                                |  |
| Modification Item 1 of 1: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                                                |                                |                                |                                |                                |  |
| B Kits                                                                                                            |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                                                |                                |                                |                                |                                |  |
| Recurring                                                                                                         |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                                                |                                |                                |                                |                                |  |
| 1.1.4) (MP054)TPX-42 UPG, FC4 (Recorders) - NonOrganic <sup>(1)</sup>                                             | 6 / 0.000                      | 6 / 0.306                      | 2 / 0.104                      | 6 / 0.318                                                    | - / -                          | 6 / 0.318                      | 5 / 0.275                      | - / -                                                                                                                          | - / -                          | - / -                          | - / -                          | 25 / 1.003                     |  |
| 1.1.5) (MP055) TPX-42 UPG, FC5 - NonOrganic <sup>(2)</sup>                                                        | 3 / 0.000                      | 3 / 1.470                      | 2 / 0.998                      | 2 / 1.003                                                    | - / -                          | 2 / 1.003                      | - / -                          | - / -                                                                                                                          | - / -                          | - / -                          | - / -                          | 10 / 3.471                     |  |
| 1.1.6) (MP056) TPX-42 Embedded Trainer - NonOrganic <sup>(3)</sup>                                                | 6 / 0.000                      | 6 / 0.536                      | 2 / 0.140                      | 1 / 0.071                                                    | - / -                          | 1 / 0.071                      | 2 / 0.148                      | - / -                                                                                                                          | - / -                          | - / -                          | - / -                          | 17 / 0.895                     |  |
| 1.1.7) (MP057) TPX-42 Embedded Trainer Final Control - NonOrganic <sup>(4)</sup>                                  | - / -                          | - / -                          | - / -                          | 7 / 0.410                                                    | - / -                          | 7 / 0.410                      | 6 / 0.268                      | 5 / 0.278                                                                                                                      | 7 / 0.398                      | - / -                          | - / -                          | 25 / 1.354                     |  |
| 1.1.8) (MP058) TPX-42 Multi-Function Console - NonOrganic <sup>(5)</sup>                                          | - / -                          | - / -                          | 2 / 2.444                      | 1 / 1.223                                                    | - / -                          | 1 / 1.223                      | 1 / 1.247                      | 1 / 1.700                                                                                                                      | 1 / 1.734                      | 1 / 1.769                      | 18 / 21.986                    | 25 / 32.103                    |  |
| 1.1.9) (MP059) TPX-42 ECP Upgrades - NonOrganic <sup>(6)</sup>                                                    | 4 / 0.000                      | 2 / 0.651                      | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                                                                          | - / -                          | - / -                          | - / -                          | 6 / 0.651                      |  |
| 1.1.18) (MP052) SPN-43 ECP Upgrade - NonOrganic <sup>(7)</sup>                                                    | 6 / 0.000                      | 4 / 0.952                      | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                                                                          | - / -                          | - / -                          | - / -                          | 10 / 0.952                     |  |
| 1.1.19) (MP060) SPN-43 Transmitter/Receiver Upgrade - NonOrganic <sup>(8)</sup>                                   | - / -                          | - / -                          | 1 / 2.496                      | 1 / 2.550                                                    | - / -                          | 1 / 2.550                      | 1 / 2.601                      | 1 / 2.652                                                                                                                      | 1 / 2.707                      | 1 / 2.761                      | 19 / 47.500                    | 25 / 63.267                    |  |
| Subtotal: Recurring                                                                                               | - / 0.000                      | - / 3.915                      | - / 6.182                      | - / 5.575                                                    | - / -                          | - / 5.575                      | - / 4.539                      | - / 4.630                                                                                                                      | - / 4.839                      | - / 4.530                      | - / 69.486                     | - / 103.696                    |  |
| Subtotal: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060)                 | 25 / 0.000                     | 21 / 3.915                     | 9 / 6.182                      | 18 / 5.575                                                   | - / -                          | 18 / 5.575                     | 15 / 4.539                     | 7 / 4.630                                                                                                                      | 9 / 4.839                      | 2 / 4.530                      | 37 / 69.486                    | 143 / 103.696                  |  |
| Subtotal: Procurement, All Modification Items                                                                     | - / 0.000                      | - / 3.915                      | - / 6.182                      | - / 5.575                                                    | - / -                          | - / 5.575                      | - / 4.539                      | - / 4.630                                                                                                                      | - / 4.839                      | - / 4.530                      | - / 69.486                     | - / 103.696                    |  |
| Support (All Modification Items)                                                                                  |                                |                                |                                |                                                              |                                |                                |                                |                                                                                                                                |                                |                                |                                |                                |  |
| 2.1) Engineering Changes to Correct Deficiencies                                                                  | - / -                          | - / 0.352                      | - / 0.366                      | - / 0.380                                                    | - / -                          | - / 0.380                      | - / 0.355                      | - / 0.366                                                                                                                      | - / 0.373                      | - / 0.380                      | Continuing                     | Continuing                     |  |
| 2.2) Integrated Logistics Support                                                                                 | - / -                          | - / 0.281                      | - / 0.305                      | - / 0.315                                                    | - / -                          | - / 0.315                      | - / 0.324                      | - / 0.340                                                                                                                      | - / 0.333                      | - / 0.339                      | Continuing                     | Continuing                     |  |
| 2.3) Production Engineering                                                                                       | - / -                          | - / 0.270                      | - / 0.295                      | - / 0.304                                                    | - / -                          | - / 0.304                      | - / 0.311                      | - / 0.300                                                                                                                      | - / 0.310                      | - / 0.316                      | Continuing                     | Continuing                     |  |
| 2.4) Quality Assurance                                                                                            | - / -                          | - / 0.050                      | - / 0.055                      | - / 0.060                                                    | - / -                          | - / 0.060                      | - / 0.065                      | - / 0.070                                                                                                                      | - / 0.075                      | - / 0.076                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                                                                 | - / 0.000                      | - / 0.953                      | - / 1.021                      | - / 1.059                                                    | - / -                          | - / 1.059                      | - / 1.055                      | - / 1.076                                                                                                                      | - / 1.091                      | - / 1.111                      | Continuing                     | Continuing                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                               |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                                                            |                                           |                                           |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                          |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |                                           |                                           |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                  |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                                                                                                                |                                           |                                           |                                           |                                           |  |
| <b>Models of Systems Affected:</b> CVNs, LHA/LHD class ships                                                             |                                           |                                           |                                           | <b>Modification Type:</b> Modernization                             |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b>                                                                                                         |                                           |                                           |                                           |                                           |  |
| <b>Financial Plan</b>                                                                                                    | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                             | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                                                                                                                        | <b>FY 2022</b>                            | <b>FY 2023</b>                            | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                                                          | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                           | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                                                             | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Installation</b>                                                                                                      |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                                                                                                                       |                                           |                                           |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) | - / 0.000                                 | - / 3.617                                 | - / 1.454                                 | - / 1.959                                                           | - / 0.000                                 | - / 1.959                                 | - / 2.966                                 | - / 2.881                                                                                                                             | - / 2.808                                 | - / 3.280                                 | - / 32.028                                | - / 50.993                                |  |
| <i>Subtotal: Installation</i>                                                                                            | - / 0.000                                 | - / 3.617                                 | - / 1.454                                 | - / 1.959                                                           | - / -                                     | - / 1.959                                 | - / 2.966                                 | - / 2.881                                                                                                                             | - / 2.808                                 | - / 3.280                                 | - / 32.028                                | - / 50.993                                |  |
| <b>Total</b>                                                                                                             |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                                                                                                                       |                                           |                                           |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                 | <b>0.000</b>                              | <b>8.485</b>                              | <b>8.657</b>                              | <b>8.593</b>                                                        | <b>0.000</b>                              | <b>8.593</b>                              | <b>8.560</b>                              | <b>8.587</b>                                                                                                                          | <b>8.738</b>                              | <b>8.921</b>                              | <b>Continuing</b>                         | <b>Continuing</b>                         |  |
|                                                                                                                          |                                           |                                           |                                           |                                                                     |                                           |                                           |                                           |                                                                                                                                       |                                           |                                           |                                           |                                           |  |

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|--------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                               |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                          |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                          |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |           |                                |           |                                |                                           |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                    |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Manufacturer Location: Patuxent River, MD |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 7                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Production Leadtime (in Months): 6        |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                             |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                           |                                |           | <b>FY 2021</b>                 |           |                                                                                                                                       |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                           |            | Apr 2017                       |           |                                |           | Apr 2018                       |           |                                |           | Apr 2019                                                            |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                           |            | Oct 2017                       |           |                                |           | Oct 2018                       |           |                                |           | Oct 2019                                                            |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: (MP054)TPX-42 UPG, FC4 (Recorders)                |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                 |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                  |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                                                        |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                          |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                                                        |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                              |            | - / -                          |           | 6 / 0.300                      |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | 0 / 0.000                      |           | 6 / 0.300                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                  |            | - / -                          |           | - / -                          |           | 6 / 0.317                      |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | 0 / 0.000                      |           | 6 / 0.317                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | 2 / 0.115                      |           | 0 / 0.000                                                           |           | 2 / 0.115                      |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | 0 / 0.000                      |           | 2 / 0.115                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | 6 / 0.675                      |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | 0 / 0.000                      |           | 6 / 0.675                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | 5 / 0.574                      |           | - / -                          |           | - / -                                                                                                                                 |           | 0 / 0.000                      |           | 5 / 0.574                      |           |                |           |           |           |           |            |
| FY 2021                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                  |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                                                                                 |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                    |            | - / -                          |           | 6 / 0.300                      |           | 6 / 0.317                      |           | 2 / 0.115                      |           | 0 / 0.000                                                           |           | 2 / 0.115                      |           | 6 / 0.675                      |                                           | 5 / 0.574                      |           | - / -                          |           | - / -                                                                                                                                 |           | 0 / 0.000                      |           | 25 / 1.981                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                                                                       |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                           |                                |           | <b>FY 2021</b>                 |           |                                                                                                                                       |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                          |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                 | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                                                             | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                       | -          | 2                              | 2         | 2                              | -         | 2                              | 2         | 2                              | -         | -                                                                   | -         | 2                              | -         | 2                              | 2                                         | 2                              | -         | 2                              | 2         | 1                                                                                                                                     | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 25         |
| Out                                                                                                                      | -          | 2                              | 2         | 2                              | -         | 2                              | 2         | 2                              | -         | -                                                                   | -         | 2                              | -         | 2                              | 2                                         | 2                              | -         | 2                              | 2         | 1                                                                                                                                     | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 25         |

## UNCLASSIFIED

|                                                                                 |                                                                     |                                                                                                                                       |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060)

## Installation Information

**Method of Implementation:** AIT:: Installation Name: (MP055) TPX-42 UPG, FC5

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 3 / 0.274                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.274                      |
| FY 2017           | - / -                          | - / -                          | 3 / 0.289                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.289                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | 2 / 0.182                      | 0 / 0.000                      | 2 / 0.182                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.182                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.187                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.187                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 3 / 0.274                      | 3 / 0.289                      | 2 / 0.182                      | 0 / 0.000                      | 2 / 0.182                      | 2 / 0.187                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 10 / 0.932                     |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | 1       | 1  | 1  | -  | 1       | 1  | 1  | -  | -       | 1  | 1  | -  | -       | 1  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 10  |
| Out | -   | 1       | 1  | 1  | -  | 1       | 1  | 1  | -  | -       | 1  | 1  | -  | -       | 1  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 10  |

**Method of Implementation:** [none specified]:: Installation Name: (MP056) TPX-42 Embedded Trainer

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 6 / 0.845                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.845                      |
| FY 2017           | - / -                          | - / -                          | 6 / 0.848                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.848                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | 2 / 0.281                      | 0 / 0.000                      | 2 / 0.281                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.281                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.192                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.192                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.385                      | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.385                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |

## UNCLASSIFIED

|                                                                                 |                                                                     |                                                                                                                                       |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060)

## Installation Information

**Method of Implementation:** [none specified]:: Installation Name: (MP056) TPX-42 Embedded Trainer

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 6 / 0.845                      | 6 / 0.848                      | 2 / 0.281                      | 0 / 0.000                      | 2 / 0.281                      | 1 / 0.192                      | 2 / 0.385                      | - / -                          | - / -                          | 0 / 0.000                      | 17 / 2.551                     |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | 2       | 2  | 2  | -  | 2       | 2  | 2  | -  | -       | 1  | 1  | -  | -       | 1  | -  | -  | -       | 1  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 17  |
| Out | -   | 2       | 2  | 2  | -  | 2       | 2  | 2  | -  | -       | 1  | 1  | -  | -       | 1  | -  | -  | -       | 1  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 17  |

**Method of Implementation:** [none specified]:: Installation Name: (MP057) TPX-42 Embedded Trainer Final Control

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 0.378                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 7 / 0.378                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 6 / 0.328                      | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.328                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 5 / 0.713                      | - / -                          | 0 / 0.000                      | 5 / 0.713                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 1.135                      | 0 / 0.000                      | 7 / 1.135                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 0.378                      | 6 / 0.328                      | 5 / 0.713                      | 7 / 1.135                      | 0 / 0.000                      | 25 / 2.554                     |

**UNCLASSIFIED**

|                                                                                 |                                                                     |                                                                                                                                       |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060)

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: (MP057) TPX-42 Embedded Trainer Final Control

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 2       | 3  | 2  | -  | 2       | 2  | 2  | -  | -       | 1  | 2  | 2  | -       | 2  | 2  | 3  | -  | 25  |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 2       | 3  | 2  | -  | 2       | 2  | 2  | -  | -       | 1  | 2  | 2  | -       | 2  | 2  | 3  | -  | 25  |

**Method of Implementation:** AIT:: Installation Name: (MP058) TPX-42 Multi-Function Console

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | 2 / 0.881                      | 0 / 0.000                      | 2 / 0.881                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.881                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.017                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 1.017                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.075                      | - / -                          | - / -                          | 0 / 0.000                      | 1 / 1.075                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.578                      | - / -                          | 0 / 0.000                      | 1 / 1.578                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.618                      | 0 / 0.000                      | 1 / 1.618                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.772                      | 1 / 1.772                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 18 / 19.579                    | 18 / 19.579                    |
| Total             | - / -                          | - / -                          | - / -                          | 2 / 0.881                      | 0 / 0.000                      | 2 / 0.881                      | 1 / 1.017                      | 1 / 1.075                      | 1 / 1.578                      | 1 / 1.618                      | 19 / 21.351                    | 25 / 27.520                    |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 1  | 1  | -       | 1  | -  | -  | -       | 1  | -  | -  | -       | -  | -  | 1  | -       | -  | 1  | -  | 19 | 25  |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 1  | 1  | -       | 1  | -  | -  | -       | 1  | -  | -  | -       | -  | -  | 1  | -       | -  | 1  | -  | 19 | 25  |



## UNCLASSIFIED

|                                                                                 |                                                                     |                                                                                                                                       |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification: PB 2019 Navy</b>                      |                                                                     | <b>Date:</b> February 2018                                                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060)

## Installation Information

**Method of Implementation:** AIT:: Installation Name: (MP059) TPX-42 ECP Upgrades

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 4 / 0.760                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 4 / 0.760                      |
| FY 2017           | - / -                          | 2 / 0.380                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.380                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 6 / 1.140                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 1.140                      |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | 4  | 2  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 6   |
| Out | -   | -       | 4  | 2  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 6   |

**Method of Implementation:** [none specified]:: Installation Name: (MP052) SPN-43 ECP Upgrade

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 6 / 0.705                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.705                      |
| FY 2017           | - / -                          | 4 / 0.353                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 4 / 0.353                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |

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|---------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060)

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: (MP052) SPN-43 ECP Upgrade

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 10 / 1.058                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 10 / 1.058                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | 10 | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 10  |
| Out | -   | -       | -  | 10 | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 10  |

**Method of Implementation:** [none specified]:: Installation Name: (MP060) SPN-43 Transmitter/Receiver Upgrade

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | 1 / 0.500                      | 0 / 0.000                      | 1 / 0.500                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.500                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.517                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.517                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.519                      | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.519                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.517                      | - / -                          | 0 / 0.000                      | 1 / 0.517                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.527                      | 0 / 0.000                      | 1 / 0.527                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.537                      | 1 / 0.537                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 19 / 10.140                    | 19 / 10.140                    |
| Total             | - / -                          | - / -                          | - / -                          | 1 / 0.500                      | 0 / 0.000                      | 1 / 0.500                      | 1 / 0.517                      | 1 / 0.519                      | 1 / 0.517                      | 1 / 0.527                      | 20 / 10.677                    | 25 / 13.257                    |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                               |                                                                     | <b>Date:</b> February 2018                                                                                                            |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                          | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>1 / SATC Modernization Kit Summary<br>(MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                  |                                                                     | <b>MDAP/MAIS Code:</b>                                                                                                                |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Modification Item 1 of 1:</b> SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059, MP060) |                                                                     |                                                                                                                                       |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Information</b>                                                                                          |                                                                     |                                                                                                                                       |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: (MP060) SPN-43 Transmitter/Receiver Upgrade       |                                                                     |                                                                                                                                       |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Schedule</b>                                                                                             |                                                                     |                                                                                                                                       |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|                                                                                                                          | PYS                                                                 | FY 2017                                                                                                                               |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                                          |                                                                     | Q1                                                                                                                                    | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                                       | -                                                                   | -                                                                                                                                     | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | 1  | -  | 20 | 25  |
| Out                                                                                                                      | -                                                                   | -                                                                                                                                     | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | -  | 1  | -       | -  | 1  | -  | 20 | 25  |

**Footnotes:**

(1) MP054 TPX-42 UPG, FC4: Inventory Objective is 25. 4 procurements and 4 installations were funded prior to FY17 and are reflected in BLI 2831.

(2) MP055 TPX-42 UPG, FC5 Inventory objective is 10. 14 procurements and 14 installations were funded prior to FY17 and are reflected in BLI 2831.

(3) MP056 TPX-42 Embedded Trainer: Inventory Objective is 17. 8 procurements and 8 installations were funded prior to FY17 and are reflected in BLI 2831.

(4) MP057 TPX-42 Embedded Trainer Final Control: Inventory Objective is 25.

(5) MP058 TPX-42 Multi-Function Console: Inventory Objective is 25. The Multi-Function Console (MFC) provides a common human interface for all ATC workstations that includes complete upgrades of software and hardware to support new radar sensors that will reduce operational costs and improve reliability. This item is currently in development and is reflected in the RDT&E Budget (PE 0604504N Air Control/Project Unit 0993). FY2018 will be the first procurement and the government will own the software. Many of the other items in this P-3a are Engineering Change Proposals to resolve obsolescence issues. One system consists of OD/220 controller consoles, OL/541 racks and MT7326 power distribution racks. The OL/541 and MT7326 are common between CVNs and LHD/LHAs, OD/220s however vary between the type of ship, there are 5 OD/220s on CVNs and 8 OD/220s on LHA/Ds. The increased cost in FY21 is due to it being the first year the system is being procured for an LHA/D.

(6) MP059 TPX-42 ECP Upgrades: Inventory Objective is 6. 4 procurements and 4 installations were funded prior to FY17 and are reflected in BLI 2831.

(7) MP052 SPN-43 ECP Upgrades: Inventory Objective is 10. 9 procurements and 9 installations were funded prior to FY17 and are reflected in BLI 2831.

(8) MP060 SPN-43 Transmitter / Receiver Upgrade: Inventory Objective is 25. This cost element provides a major engineering upgrade of hardware and software to the AN/SPN-43 transmitter/receiver that will ensure safe and expeditious shipboard approach, departure, and marshal control to support fleet operations. This is the first such upgrade in over 2 decades. There are no manufacturers of compatible parts for the transmitter/receiver any longer. This upgrade addresses all major obsolescence issues. This item is currently in development and is reflected in the RDT&E Budget (PE 0604504N Air Control/Project Unit 0993). FY2018 will be the first procurement.

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                             |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / ACLS MOD KITS SUMMARY PN408 |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                        |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                         | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                      | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.000              | 7.028          | 12.064         | 11.108                                                              | 0.000              | 11.108               | 11.195                 | 19.257         | 18.210         | 22.092                                                                 | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                      | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.000              | 7.028          | 12.064         | 11.108                                                              | 0.000              | 11.108               | 11.195                 | 19.257         | 18.210         | 22.092                                                                 | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                      | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>0.000</b>       | <b>7.028</b>   | <b>12.064</b>  | <b>11.108</b>                                                       | <b>0.000</b>       | <b>11.108</b>        | <b>11.195</b>          | <b>19.257</b>  | <b>18.210</b>  | <b>22.092</b>                                                          | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                        |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                      | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                      | -                  | -                 |
| <b>Description:</b><br>The equipment and installation costs on this P-3a are for individual modification programs for AN/SPN-35/41/46 systems. Funding has also been provided for upgrades addressing broadened cyber-security requirements to remain compliant with software cyber-security directives and Information Assurance mandates. Line item "Engineering Changes to Correct Deficiencies" captures anticipated emergent engineering changes. PMA213 configuration control board approves inventory objectives. Contract and Delivery dates are various. |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                        |                    |                   |

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|--------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                            |                                |                                |                                |                                                              |                                |                                |                                |                                | Date: February 2018                                             |                                |                                |                                |              |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9       |                                |                                |                                | P-1 Line Item Number / Title:<br>2830 / Afloat ATC Equipment |                                |                                |                                |                                | Modification Number / Title:<br>2 / ACLS MOD KITS SUMMARY PN408 |                                |                                |                                |              |
| ID Code (A=Service Ready, B=Not Service Ready) :                               |                                |                                |                                |                                                              |                                |                                | MDAP/MAIS Code:                |                                |                                                                 |                                |                                |                                |              |
| Models of Systems Affected: CVNs, LHA/LHD class ship, and selected shore sites |                                |                                |                                | Modification Type: Modernization                             |                                |                                |                                | Related RDT&E PEs:             |                                                                 |                                |                                |                                |              |
| Financial Plan                                                                 | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                         | FY 2023                        | To Complete                    | Total                          |              |
|                                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |              |
| Procurement                                                                    |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408                          |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| B Kits                                                                         |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| Non-Recurring                                                                  |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| 1.1.1) AN/SPN-46 TS-4176 - NonOrganic                                          |                                | 4 / 0.000                      | 4 / 0.800                      | 1 / 0.200                                                    | 3 / 0.600                      | - / -                          | 3 / 0.600                      | - / -                          | - / -                                                           | - / -                          | - / -                          | 12 / 1.600                     |              |
| 1.1.3) AN/SPN-46 COTS Refresh - NonOrganic <sup>(9)</sup>                      |                                | - / -                          | 2 / 0.510                      | 20 / 5.000                                                   | 10 / 2.370                     | - / -                          | 10 / 2.370                     | 6 / 1.446                      | 6 / 1.470                                                       | 6 / 1.500                      | 6 / 1.524                      | - / -                          | 56 / 13.820  |
| 1.1.4) AN/SPN-46 Obsolescence - NonOrganic                                     |                                | - / -                          | 4 / 0.876                      | - / -                                                        | 10 / 2.964                     | - / -                          | 10 / 2.964                     | 2 / 0.604                      | 4 / 1.228                                                       | - / -                          | - / -                          | - / -                          | 20 / 5.672   |
| 1.1.14) AN/SPN-35 Receiver Transmitter Mod - NonOrganic                        |                                | 2 / 0.000                      | 2 / 0.056                      | 1 / 0.028                                                    | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                           | - / -                          | - / -                          | - / -                          | 5 / 0.084    |
| 1.1.16) AN/SPN-46 Unit 16 Power Supply - NonOrganic                            |                                | - / -                          | - / -                          | - / -                                                        | 3 / 0.552                      | - / -                          | 3 / 0.552                      | 3 / 0.561                      | 4 / 0.764                                                       | 3 / 0.582                      | 3 / 0.585                      | - / -                          | 16 / 3.044   |
| Subtotal: Non-Recurring                                                        |                                | - / 0.000                      | - / 2.242                      | - / 5.228                                                    | - / 6.486                      | - / -                          | - / 6.486                      | - / 2.611                      | - / 3.462                                                       | - / 2.082                      | - / 2.109                      | - / 0.000                      | - / 24.220   |
| Subtotal: ACLS MOD KITS SUMMARY PN408                                          |                                | 6 / 0.000                      | 12 / 2.242                     | 22 / 5.228                                                   | 26 / 6.486                     | - / -                          | 26 / 6.486                     | 11 / 2.611                     | 14 / 3.462                                                      | 9 / 2.082                      | 9 / 2.109                      | - / -                          | 109 / 24.220 |
| Subtotal: Procurement, All Modification Items                                  |                                | - / 0.000                      | - / 2.242                      | - / 5.228                                                    | - / 6.486                      | - / -                          | - / 6.486                      | - / 2.611                      | - / 3.462                                                       | - / 2.082                      | - / 2.109                      | - / 0.000                      | - / 24.220   |
| Support (All Modification Items)                                               |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| 2.1) Engineering Changes to Correct Deficiencies ECO SPN-46                    |                                | - / -                          | - / 0.400                      | - / 0.469                                                    | - / 0.274                      | - / -                          | - / 0.274                      | - / 1.129                      | - / 7.702                                                       | - / 3.366                      | - / 4.995                      | Continuing                     | Continuing   |
| 2.2) Engineering Changes to Correct Deficiencies ECO SPN-35/41                 |                                | - / -                          | - / 0.589                      | - / 1.127                                                    | - / 0.588                      | - / -                          | - / 0.588                      | - / 1.581                      | - / 1.947                                                       | - / 2.849                      | - / 5.212                      | Continuing                     | Continuing   |
| 2.3) Integrated Logistics Support                                              |                                | - / -                          | - / 0.457                      | - / 0.780                                                    | - / 0.446                      | - / -                          | - / 0.446                      | - / 0.459                      | - / 0.473                                                       | - / 0.482                      | - / 0.482                      | Continuing                     | Continuing   |
| 2.4) Production Engineering <sup>(10)</sup>                                    |                                | - / -                          | - / 2.247                      | - / 3.518                                                    | - / 1.836                      | - / -                          | - / 1.836                      | - / 2.654                      | - / 3.613                                                       | - / 7.259                      | - / 8.289                      | Continuing                     | Continuing   |
| 2.5) Quality Assurance                                                         |                                | - / -                          | - / 0.102                      | - / -                                                        | - / 0.106                      | - / -                          | - / 0.106                      | - / 0.109                      | - / 0.109                                                       | - / 0.111                      | - / 0.111                      | Continuing                     | Continuing   |
| 2.6) Acceptance, Test and Evaluation                                           |                                | - / -                          | - / 0.030                      | - / -                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                           | - / -                          | - / -                          | - / -                          | - / 0.030    |
| Subtotal: Support                                                              |                                | - / 0.000                      | - / 3.825                      | - / 5.894                                                    | - / 3.250                      | - / -                          | - / 3.250                      | - / 5.932                      | - / 13.844                                                      | - / 14.067                     | - / 19.089                     | Continuing                     | Continuing   |
| Installation                                                                   |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408                          |                                | - / 0.000                      | - / 0.961                      | - / 0.942                                                    | - / 1.372                      | - / 0.000                      | - / 1.372                      | - / 2.652                      | - / 1.951                                                       | - / 2.061                      | - / 0.894                      | - / 0.991                      | - / 11.824   |
| Subtotal: Installation                                                         |                                | - / 0.000                      | - / 0.961                      | - / 0.942                                                    | - / 1.372                      | - / -                          | - / 1.372                      | - / 2.652                      | - / 1.951                                                       | - / 2.061                      | - / 0.894                      | - / 0.991                      | - / 11.824   |
| Total                                                                          |                                |                                |                                |                                                              |                                |                                |                                |                                |                                                                 |                                |                                |                                |              |
| Total Cost (Procurement + Support + Installation)                              |                                | 0.000                          | 7.028                          | 12.064                                                       | 11.108                         | 0.000                          | 11.108                         | 11.195                         | 19.257                                                          | 18.210                         | 22.092                         | Continuing                     | Continuing   |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------|-----------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------|------------------------------------------------------------------------|---------------------------------------|----------------|---------------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                            |            |                                       |                                       |           |                                       |                |                                       |           |                                       | <b>Date:</b> February 2018                                          |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                       |            |                                       |                                       |           |                                       |                |                                       |           |                                       | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                       |           |                                       |                |                                             |           |                                       |                |                                       | <b>Modification Number / Title:</b><br>2 / ACLS MOD KITS SUMMARY PN408 |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                               |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                | <b>MDAP/MAIS Code:</b>                      |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> ACLS MOD KITS SUMMARY PN408                                                                                                                                                                                                                                                                          |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                                                                                                                                                                                                                             |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                | Manufacturer Location: Patuxent River, MD   |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                                                                                                                                                                                                                        |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                | Production Leadtime <i>(in Months)</i> : 12 |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                          |            | <b>FY 2017</b>                        |                                       |           |                                       | <b>FY 2018</b> |                                       |           |                                       | <b>FY 2019</b>                                                      |                                       |           |                                       | <b>FY 2020</b> |                                             |           |                                       | <b>FY 2021</b> |                                       |                                                                        |                                       | <b>FY 2022</b> |                                       |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                        |            | Dec 2016                              |                                       |           |                                       | Dec 2017       |                                       |           |                                       | Dec 2018                                                            |                                       |           |                                       | Dec 2019       |                                             |           |                                       | Dec 2020       |                                       |                                                                        |                                       | Dec 2021       |                                       |           |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                        |            | Dec 2017                              |                                       |           |                                       | Dec 2018       |                                       |           |                                       | Dec 2019                                                            |                                       |           |                                       | Dec 2020       |                                             |           |                                       | Dec 2021       |                                       |                                                                        |                                       | Dec 2022       |                                       |           |           | Dec 2023       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT (Alteration Installation Team):: Installation Name: ACLS Mod Kits                                                                                                                                                                                                                                |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                              |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        |           | <b>FY 2018</b>                        |                | <b>FY 2019 Base</b>                   |           | <b>FY 2019 OCO</b>                    |                                                                     | <b>FY 2019 Total</b>                  |           | <b>FY 2020</b>                        |                | <b>FY 2021</b>                              |           | <b>FY 2022</b>                        |                | <b>FY 2023</b>                        |                                                                        | <b>To Complete</b>                    |                | <b>Total</b>                          |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                       |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i>       |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                        | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                           |            | - / -                                 | 6 / 0.961                             |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                       |           | - / -                                 |                | - / -                                 |                                                                        | 0 / 0.000                             |                | 6 / 0.961                             |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | 12 / 0.942                            |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                       |           | - / -                                 |                | - / -                                 |                                                                        | 0 / 0.000                             |                | 12 / 0.942                            |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | - / -                                 |                | 22 / 1.372                            |           | 0 / 0.000                             |                                                                     | 22 / 1.372                            |           | - / -                                 |                | - / -                                       |           | - / -                                 |                | - / -                                 |                                                                        | 0 / 0.000                             |                | 22 / 1.372                            |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | 26 / 2.652                            |                | - / -                                       |           | - / -                                 |                | - / -                                 |                                                                        | 0 / 0.000                             |                | 26 / 2.652                            |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | 11 / 1.951                                  |           | - / -                                 |                | - / -                                 |                                                                        | 0 / 0.000                             |                | 11 / 1.951                            |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                       |           | 14 / 2.061                            |                | - / -                                 |                                                                        | 0 / 0.000                             |                | 14 / 2.061                            |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                       |           | - / -                                 |                | 9 / 0.894                             |                                                                        | 0 / 0.000                             |                | 9 / 0.894                             |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                               |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                       |           | - / -                                 |                | - / -                                 |                                                                        | 9 / 0.991                             |                | 9 / 0.991                             |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                           |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                     | - / -                                 |           | - / -                                 |                | - / -                                       |           | - / -                                 |                | - / -                                 |                                                                        | - / -                                 |                | - / -                                 |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                 |            | - / -                                 | 6 / 0.961                             |           | 12 / 0.942                            |                | 22 / 1.372                            |           | 0 / 0.000                             |                                                                     | 22 / 1.372                            |           | 26 / 2.652                            |                | 11 / 1.951                                  |           | 14 / 2.061                            |                | 9 / 0.894                             |                                                                        | 9 / 0.991                             |                | 109 / 11.824                          |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                          |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                       | <b>PYS</b> | <b>FY 2017</b>                        |                                       |           |                                       | <b>FY 2018</b> |                                       |           |                                       | <b>FY 2019</b>                                                      |                                       |           |                                       | <b>FY 2020</b> |                                             |           |                                       | <b>FY 2021</b> |                                       |                                                                        |                                       | <b>FY 2022</b> |                                       |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                       |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>                                                           | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                                   | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b>                                                              | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                    | -          | -                                     | 4                                     | 2         | -                                     | -              | 6                                     | 6         | -                                     | -                                                                   | 10                                    | 12        | -                                     | 1              | 14                                          | 10        | 1                                     | 1              | 5                                     | 5                                                                      | -                                     | 1              | 7                                     | 6         | -         | 1              | 5         | 3         | -         | 9         | 109        |
| Out                                                                                                                                                                                                                                                                                                                                   | -          | -                                     | 4                                     | 2         | -                                     | -              | 6                                     | 6         | -                                     | -                                                                   | 10                                    | 12        | -                                     | 1              | 14                                          | 10        | 1                                     | 1              | 5                                     | 5                                                                      | -                                     | 1              | 7                                     | 6         | -         | 1              | 5         | 3         | -         | 9         | 109        |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                     |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <sup>(9)</sup> The variance in kit costs from year to year is due to the makeup of the different equipment being installed each year, the different hull types receiving modifications, and the different Design Services Allocation (DSA) and install costs from different locations depending on where modifications are performed. |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <sup>(10)</sup> Several SPN-46 subassemblies are rapidly becoming unsustainable due primarily to component obsolescence. Increased production engineering will be required in support of future, approved ECP efforts to mitigate these issues and keep the SPN-46 viable to support Warfighter ACLS operations.                      |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                     |                                       |           |                                       |                |                                             |           |                                       |                |                                       |                                                                        |                                       |                |                                       |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                     |                                                                     |                      |                        |                |                | <b>Date:</b> February 2018                                                         |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / AN/SPN-46 (V)3 Radar Set Group<br>PN413 |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                     |                                                                     |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                    |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                     | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.000              | 6.219          | 7.086          | 3.384               | 0.000                                                               | 3.384                | 0.791                  | 0.000          | 0.000          | 0.000                                                                              | 0.000              | 17.480        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.000              | 6.219          | 7.086          | 3.384               | 0.000                                                               | 3.384                | 0.791                  | 0.000          | 0.000          | 0.000                                                                              | 0.000              | 17.480        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>0.000</b>       | <b>6.219</b>   | <b>7.086</b>   | <b>3.384</b>        | <b>0.000</b>                                                        | <b>3.384</b>         | <b>0.791</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                       | <b>0.000</b>       | <b>17.480</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                    |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                  | -                  | -             |
| <p><b>Description:</b></p> <p>The equipment and installation costs on this P-3a are for individual modifications as part of the AN/SPN-46 Life Cycle Extension program. The current AN/SPN-46 receiver houses both Ka and X-band components that are densely packaged and RF components that are obsolete technology and are no longer manufactured. The Radar Set Group re-packages the RF components using more modern and smaller components making the unit able to be supported and maintained. The inventory objective for this item is 13, of which 11 are OPN-funded and 2 SCN-funded.</p> |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                    |                    |               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   | <b>Date:</b> February 2018                                                         |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                   |                                   |                                   |                                   |                                   | <b>Modification Number / Title:</b><br>3 / AN/SPN-46 (V)3 Radar Set Group<br>PN413 |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                   |                                                                                    |                                   |                                   |  |
| <b>Models of Systems Affected:</b> CVNs and selected shore sites                |                                   |                                   |                                   | <b>Modification Type:</b> Reliability                               |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b>     |                                   |                                                                                    |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                    | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                     | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                   | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                  | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-46 (V)3 Radar Set Group PN413           |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| Recurring                                                                       |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| 2.1.1) AN/SPN-46 (V)3 Radar Set Group PN413 - NonOrganic <sup>(11)</sup>        | 3 / 0.000                         | 2 / 2.641                         | 2 / 2.695                         | 1 / 1.372                                                           | - / -                             | 1 / 1.372                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / -                             | 8 / 6.708                         |  |
| <b>Subtotal: Recurring</b>                                                      | - / 0.000                         | - / 2.641                         | - / 2.695                         | - / 1.372                                                           | - / -                             | - / 1.372                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / 0.000                         | - / 6.708                         |  |
| <b>Subtotal: AN/SPN-46 (V)3 Radar Set Group PN413</b>                           | 3 / 0.000                         | 2 / 2.641                         | 2 / 2.695                         | 1 / 1.372                                                           | - / -                             | 1 / 1.372                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / -                             | 8 / 6.708                         |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 0.000                         | - / 2.641                         | - / 2.695                         | - / 1.372                                                           | - / -                             | - / 1.372                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / 0.000                         | - / 6.708                         |  |
| <b>Support (All Modification Items)</b>                                         |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| 3.1) Integrated Logistic Support                                                | - / -                             | - / 0.063                         | - / 0.047                         | - / 0.048                                                           | - / -                             | - / 0.048                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / -                             | - / 0.158                         |  |
| 3.2) Production Engineering                                                     | - / -                             | - / 1.502                         | - / 1.871                         | - / 0.385                                                           | - / -                             | - / 0.385                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / -                             | - / 3.758                         |  |
| 3.3) Acceptance Test & Evaluation                                               | - / -                             | - / 0.214                         | - / 0.208                         | - / 0.025                                                           | - / -                             | - / 0.025                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / -                             | - / 0.447                         |  |
| <b>Subtotal: Support</b>                                                        | - / 0.000                         | - / 1.779                         | - / 2.126                         | - / 0.458                                                           | - / -                             | - / 0.458                         | - / -                             | - / -                             | - / -                             | - / -                                                                              | - / 0.000                         | - / 4.363                         |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-46 (V)3 Radar Set Group PN413           | - / 0.000                         | - / 1.799                         | - / 2.265                         | - / 1.554                                                           | - / 0.000                         | - / 1.554                         | - / 0.791                         | - / 0.000                         | - / 0.000                         | - / 0.000                                                                          | - / 0.000                         | - / 6.409                         |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.000                         | - / 1.799                         | - / 2.265                         | - / 1.554                                                           | - / -                             | - / 1.554                         | - / 0.791                         | - / -                             | - / -                             | - / -                                                                              | - / 0.000                         | - / 6.409                         |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                    |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                      | <b>6.219</b>                      | <b>7.086</b>                      | <b>3.384</b>                                                        | <b>0.000</b>                      | <b>3.384</b>                      | <b>0.791</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                                                                       | <b>0.000</b>                      | <b>17.480</b>                     |  |



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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                          |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |           |                                |           |                                |                                           |                                |           |                                |           | <b>Modification Number / Title:</b><br>3 / AN/SPN-46 (V)3 Radar Set Group<br>PN413 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                    |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/SPN-46 (V)3 Radar Set Group PN413                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Manufacturer Location: Patuxent River, MD |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Production Leadtime (in Months): 12       |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                           |                                |           | <b>FY 2021</b>                 |           |                                                                                    |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           | Dec 2018                                                            |           |                                |           | Dec 2019                       |                                           |                                |           | Dec 2020                       |           |                                                                                    |           | Dec 2021                       |           |                                |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Dec 2017                       |           |                                |           | Dec 2018                       |           |                                |           | Dec 2019                                                            |           |                                |           | Dec 2020                       |                                           |                                |           | Dec 2021                       |           |                                                                                    |           | Dec 2022                       |           |                                |           | Dec 2023       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team (AIT):: Installation Name: AN/SPN-46 (V)3 Radar Set Group PN413                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                        |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                  |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                     |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                     |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |           | 3 / 1.799                      |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | 0 / 0.000                      |           | 3 / 1.799                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | 2 / 2.265                      |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | 0 / 0.000                      |           | 2 / 2.265                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | 2 / 1.554                      |           | 0 / 0.000                                                           |           | 2 / 1.554                      |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | 0 / 0.000                      |           | 2 / 1.554                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | 1 / 0.791                      |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | 0 / 0.000                      |           | 1 / 0.791                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                           |            | - / -                          |           | 3 / 1.799                      |           | 2 / 2.265                      |           | 2 / 1.554                      |           | 0 / 0.000                                                           |           | 2 / 1.554                      |           | 1 / 0.791                      |                                           | - / -                          |           | - / -                          |           | - / -                                                                              |           | 0 / 0.000                      |           | 8 / 6.409                      |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                           |                                |           | <b>FY 2021</b>                 |           |                                                                                    |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                 | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                          | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                              | -          | -                              | 1         | 2                              | -         | -                              | 1         | 1                              | -         | -                                                                   | 1         | 1                              | -         | -                              | -                                         | 1                              | -         | -                              | -         | -                                                                                  | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 8          |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                             | -          | -                              | 1         | 2                              | -         | -                              | 1         | 1                              | -         | -                                                                   | 1         | 1                              | -         | -                              | -                                         | 1                              | -         | -                              | -         | -                                                                                  | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 8          |
| <b>Footnotes:</b><br><sup>(11)</sup> Inventory objective is 13, of which 11 are OPN-funded and 2 SCN-funded. Note - The auxiliary hardware required varies slightly depending on what past modifications have already been incorporated into the old chassis being upgraded to the new RSG. 6 of the 11 OPN funded were procured prior to FY2017 under BLI 2832 and 3 of those 6 were installed prior to FY2017 under BLI 2832. |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                           |                                |           |                                |           |                                                                                    |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                                     |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>4 / AN/SPN-41 Transmitter MOD (LCE)<br>PN416 |  |  |  |

|                                                         |  |  |  |  |  |                        |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|-------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -     |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 0.000       | 1.101   | 0.499   | 0.019        | 0.000       | 0.019         | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 1.619 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -     |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 0.000       | 1.101   | 0.499   | 0.019        | 0.000       | 0.019         | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 1.619 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -     |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 0.000       | 1.101   | 0.499   | 0.019        | 0.000       | 0.019         | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 1.619 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |       |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -     |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -     |

**Description:**

AN/SPN-41 Transmitter MOD (LCE) PN416. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-030 and SPN41-034 in order to be fully functional as part of the AN/SPN-41 Life Cycle Extension (LCE) program. The existing transmitter is an older technology two-channel Silicon Controlled Rectifier (SCR) line type modulator that is experiencing maintainability and obsolescence issues. The transmitter is the number one maintenance cost driver and system performance degrader. This change will improve logistic supportability and system maintainability. Line Repairable Units (LRUs) Circuit Card Assemblies (CCAs) and Built-In Test (BIT) capabilities will be incorporated in the transmitter thus reducing cost for shipboard repairs and maintenance.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                             |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                          |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9        |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>4 / AN/SPN-41 Transmitter MOD (LCE)<br>PN416 |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                     |                                |                                |  |
| <b>Models of Systems Affected:</b> CVNs, LHA/LHD class ships, and selected shore sites |                                |                                |                                | <b>Modification Type:</b> Modernization                             |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                     |                                |                                |  |
| <b>Financial Plan</b>                                                                  | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                      | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                     |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Transmitter MOD (LCE) PN416                 |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| B Kits                                                                                 |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| Recurring                                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| 2.1.1) AN/SPN-41 Transmitter Replacement (LCE) - NonOrganic <sup>(12)</sup>            | 1 / 0.000                      | 4 / 0.903                      | 1 / 0.255                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | 6 / 1.158                      |  |
| <b>Subtotal: Recurring</b>                                                             | - / 0.000                      | - / 0.903                      | - / 0.255                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / 0.000                      | - / 1.158                      |  |
| <b>Subtotal: AN/SPN-41 Transmitter MOD (LCE) PN416</b>                                 | 1 / 0.000                      | 4 / 0.903                      | 1 / 0.255                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | 6 / 1.158                      |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                   | - / 0.000                      | - / 0.903                      | - / 0.255                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / 0.000                      | - / 1.158                      |  |
| <b>Support (All Modification Items)</b>                                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| 3.1) Integrated Logistics                                                              | - / -                          | - / 0.031                      | - / 0.030                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / 0.061                      |  |
| 3.2) Production Engineering                                                            | - / -                          | - / 0.142                      | - / 0.138                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / 0.280                      |  |
| <b>Subtotal: Support</b>                                                               | - / 0.000                      | - / 0.173                      | - / 0.168                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / 0.000                      | - / 0.341                      |  |
| <b>Installation</b>                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Transmitter MOD (LCE) PN416                 | - / 0.000                      | - / 0.025                      | - / 0.076                      | - / 0.019                                                           | - / 0.000                      | - / 0.019                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                           | - / 0.000                      | - / 0.120                      |  |
| <b>Subtotal: Installation</b>                                                          | - / 0.000                      | - / 0.025                      | - / 0.076                      | - / 0.019                                                           | - / -                          | - / 0.019                      | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / 0.000                      | - / 0.120                      |  |
| <b>Total</b>                                                                           |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                     |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                               | <b>0.000</b>                   | <b>1.101</b>                   | <b>0.499</b>                   | <b>0.019</b>                                                        | <b>0.000</b>                   | <b>0.019</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                                                                        | <b>0.000</b>                   | <b>1.619</b>                   |  |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                          |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                             |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |           |                                |           |                                |                                                       |                                |           |                                |           | <b>Modification Number / Title:</b><br>4 / AN/SPN-41 Transmitter MOD (LCE)<br>PN416 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                                |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Transmitter MOD (LCE) PN416                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Manufacturer Location: Webster Field, St. Inigoes, MD |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Production Leadtime (in Months): 12                   |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                     |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                              |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                              |            | Dec 2017                       |           |                                |           | Dec 2018                       |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team:: Installation Name: AN/SPN-41 Transmitter Replacement (LCE)                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                    |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                  |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                                       | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                      |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                             |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                       | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                 |            | - / -                          |           | 1 / 0.025                      |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | 0 / 0.000                      |           | 1 / 0.025                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | 4 / 0.076                      |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | 0 / 0.000                      |           | 4 / 0.076                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 0.019                      |           | 0 / 0.000                                                           |           | 1 / 0.019                      |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | 0 / 0.000                      |           | 1 / 0.019                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                       |            | - / -                          |           | 1 / 0.025                      |           | 4 / 0.076                      |           | 1 / 0.019                      |           | 0 / 0.000                                                           |           | 1 / 0.019                      |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | 0 / 0.000                      |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                             | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                     |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                             |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                             | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                           | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                          | -          | 1                              | -         | -                              | -         | 4                              | -         | -                              | -         | 1                                                                   | -         | -                              | -         | -                              | -                                                     | -                              | -         | -                              | -         | -                                                                                   | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 6          |
| Out                                                                                                                                                                         | -          | -                              | 1         | -                              | -         | -                              | 4         | -                              | -         | -                                                                   | 1         | -                              | -         | -                              | -                                                     | -                              | -         | -                              | -         | -                                                                                   | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 6          |
| <b>Footnotes:</b><br><sup>(12)</sup> AN/SPN-41 Transmitter MOD (LCE)inventory objective is 19. 14 procurements and 13 installations were funded through FY2016 on BLI 2832. |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-----------------------------------------------------------------------------------|--------------------|--------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                        |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>5 / AN/SPN-41 Coder Monitor (LCE)<br>PN417 |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                   |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                    | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 1.023          | 0.981          | 0.614                                                               | 0.000              | 0.614                | 0.000                  | 0.000          | 0.000          | 0.000                                                                             | 0.000              | 2.618        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.000              | 1.023          | 0.981          | 0.614                                                               | 0.000              | 0.614                | 0.000                  | 0.000          | 0.000          | 0.000                                                                             | 0.000              | 2.618        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>0.000</b>       | <b>1.023</b>   | <b>0.981</b>   | <b>0.614</b>                                                        | <b>0.000</b>       | <b>0.614</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                      | <b>0.000</b>       | <b>2.618</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                   |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -            |
| <p><b>Description:</b></p> <p>AN/SPN-41 Coder Monitor (LCE) PN417. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-030 and SPN41-031 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension program. This change will provide upgrades to AN/SPN-41/41A to improve Operational Availability (Ao) by addressing numerous part obsolescence issues germane to the current aging system. The change will also provide digital interfaces with other shipboard systems including the Joint Precision Approach Landing System (JPALS), and extend the service life of the AN/SPN-41/41A.</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                   |                    |              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                             |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   | <b>Date:</b> February 2018                                                        |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9        |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                   |                                   |                                   |                                   |                                   | <b>Modification Number / Title:</b><br>5 / AN/SPN-41 Coder Monitor (LCE)<br>PN417 |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                   |                                                                                   |                                   |                                   |  |
| <b>Models of Systems Affected:</b> CVNs, LHA/LHD class ships, and selected shore sites |                                   |                                   |                                   | <b>Modification Type:</b> Modernization                             |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b>     |                                   |                                                                                   |                                   |                                   |  |
| <b>Financial Plan</b>                                                                  | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                    | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                    | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                        | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                   | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                     |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| <i>Modification Item 1 of 1:</i> AN/SPN-41 Coder Monitor (LCE) PN417                   |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| B Kits                                                                                 |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| Recurring                                                                              |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| 2.1.1) AN/SPN-41 Coder Monitor (LCE) - NonOrganic (13)                                 | 1 / 0.000                         | 1 / 0.207                         | 1 / 0.207                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / -                             | 3 / 0.414                         |  |
| <i>Subtotal: Recurring</i>                                                             | - / 0.000                         | - / 0.207                         | - / 0.207                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / 0.000                         | - / 0.414                         |  |
| <i>Subtotal: AN/SPN-41 Coder Monitor (LCE) PN417</i>                                   | 1 / 0.000                         | 1 / 0.207                         | 1 / 0.207                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / -                             | 3 / 0.414                         |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                   | - / 0.000                         | - / 0.207                         | - / 0.207                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / 0.000                         | - / 0.414                         |  |
| <b>Support (All Modification Items)</b>                                                |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| 3.1) Integrated Logistic Support                                                       | - / -                             | - / 0.047                         | - / 0.032                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / -                             | - / 0.079                         |  |
| 3.2) Production Engineering                                                            | - / -                             | - / 0.177                         | - / 0.140                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / -                             | - / 0.317                         |  |
| <i>Subtotal: Support</i>                                                               | - / 0.000                         | - / 0.224                         | - / 0.172                         | - / -                                                               | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / 0.000                         | - / 0.396                         |  |
| <b>Installation</b>                                                                    |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| <i>Modification Item 1 of 1:</i> AN/SPN-41 Coder Monitor (LCE) PN417                   | - / 0.000                         | - / 0.592                         | - / 0.602                         | - / 0.614                                                           | - / 0.000                         | - / 0.614                         | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                                                                         | - / 0.000                         | - / 1.808                         |  |
| <i>Subtotal: Installation</i>                                                          | - / 0.000                         | - / 0.592                         | - / 0.602                         | - / 0.614                                                           | - / -                             | - / 0.614                         | - / -                             | - / -                             | - / -                             | - / -                                                                             | - / 0.000                         | - / 1.808                         |  |
| <b>Total</b>                                                                           |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                   |                                                                                   |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                               | <b>0.000</b>                      | <b>1.023</b>                      | <b>0.981</b>                      | <b>0.614</b>                                                        | <b>0.000</b>                      | <b>0.614</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                                                                      | <b>0.000</b>                      | <b>2.618</b>                      |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>5 / AN/SPN-41 Coder Monitor (LCE)<br>PN417 |

|                                                         |                        |
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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** AN/SPN-41 Coder Monitor (LCE) PN417

**Manufacturer Information**

|                                        |                |                |                |                                        |                |                |                |
|----------------------------------------|----------------|----------------|----------------|----------------------------------------|----------------|----------------|----------------|
| Manufacturer Name: NAWCAD              |                |                |                | Manufacturer Location: St. Inigoes, MD |                |                |                |
| Administrative Leadtime (in Months): 3 |                |                |                | Production Leadtime (in Months): 12    |                |                |                |
| <b>Dates</b>                           | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b>                         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
| Contract Dates                         | Dec 2016       | Dec 2017       |                |                                        |                |                |                |
| Delivery Dates                         | Dec 2017       | Dec 2018       |                |                                        |                |                |                |

**Installation Information**

**Method of Implementation:** Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Coder Monitor (LCE)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 1 / 0.592                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.592                      |
| FY 2017           | - / -                          | - / -                          | 1 / 0.602                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.602                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | 1 / 0.614                      | 0 / 0.000                      | 1 / 0.614                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.614                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | 1 / 0.592                      | 1 / 0.602                      | 1 / 0.614                      | 0 / 0.000                      | 1 / 0.614                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 1.808                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | 1       | -  | -  | -  | 1       | -  | -  | -  | 1       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |
| Out | -   | -       | -  | 1  | -  | -       | -  | -  | 1  | -       | -  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |

**Footnotes:**

<sup>(13)</sup> AN/SPN-41 Coder Monitor (LCE) inventory objective is 22 of which 20 procurements and 19 installations were funded through FY2016 on BLI 2832.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                  |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>6 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                             |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                              | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 2.534          | 1.392          | 1.581                                                               | 0.000              | 1.581                | 0.800                  | 0.000          | 0.000          | 0.000                                                                                       | 0.000              | 6.307        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.000              | 2.534          | 1.392          | 1.581                                                               | 0.000              | 1.581                | 0.800                  | 0.000          | 0.000          | 0.000                                                                                       | 0.000              | 6.307        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>0.000</b>       | <b>2.534</b>   | <b>1.392</b>   | <b>1.581</b>                                                        | <b>0.000</b>       | <b>1.581</b>         | <b>0.800</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                | <b>0.000</b>       | <b>6.307</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                             |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                                   | -                  | -                    | -                      | -              | -              | -                                                                                           | -                  | -            |
| <p><b>Description:</b><br/> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-031 and SPN41-034 in order to be fully functional as part of the AN/SPN-41 Life Cycle Extension program. This change replaces obsolete analog interfaces with required digital interfaces to connect with other shipboard systems including the Joint Precision Approach Landing System (JPALS).</p> |                    |                |                |                                                                     |                    |                      |                        |                |                |                                                                                             |                    |              |



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|----------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                             |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                                  |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9        |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>6 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                |                                       |                                       |                                       |                                       |                                                                     |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                       |                                                                                             |                                       |                                       |  |
| <b>Models of Systems Affected:</b> CVNs, LHA/LHD class ships, and selected shore sites |                                       |                                       |                                       |                                       | <b>Modification Type:</b> Modernization                             |                                       |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>                                                               |                                       |                                       |  |
| <b>Financial Plan</b>                                                                  | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                              | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                     |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418      |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| B Kits                                                                                 |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| Recurring                                                                              |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| 2.1.1) AN/SPN-41 Electronic Drawer Assembly (LCE) - NonOrganic <sup>(14)</sup>         | 2 / 0.000                             | 4 / 1.712                             | - / -                                 | 2 / 1.289                             | - / -                                                               | 2 / 1.289                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / -                                 | 8 / 3.001                             |  |
| <i>Subtotal: Recurring</i>                                                             | - / 0.000                             | - / 1.712                             | - / -                                 | - / 1.289                             | - / -                                                               | - / 1.289                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / 0.000                             | - / 3.001                             |  |
| <i>Subtotal: AN/SPN-41 Electronic Drawer Assembly (LCE) PN418</i>                      | 2 / 0.000                             | 4 / 1.712                             | - / -                                 | 2 / 1.289                             | - / -                                                               | 2 / 1.289                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / -                                 | 8 / 3.001                             |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                   | - / 0.000                             | - / 1.712                             | - / -                                 | - / 1.289                             | - / -                                                               | - / 1.289                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / 0.000                             | - / 3.001                             |  |
| <b>Support (All Modification Items)</b>                                                |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| 3.1) Integrated Logistics                                                              | - / -                                 | - / 0.086                             | - / -                                 | - / 0.086                             | - / -                                                               | - / 0.086                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / -                                 | - / 0.172                             |  |
| 3.2) Production Engineering                                                            | - / -                                 | - / 0.388                             | - / -                                 | - / 0.206                             | - / -                                                               | - / 0.206                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / -                                 | - / 0.594                             |  |
| <i>Subtotal: Support</i>                                                               | - / 0.000                             | - / 0.474                             | - / -                                 | - / 0.292                             | - / -                                                               | - / 0.292                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                       | - / 0.000                             | - / 0.766                             |  |
| <b>Installation</b>                                                                    |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418      | - / 0.000                             | - / 0.348                             | - / 1.392                             | - / 0.000                             | - / 0.000                                                           | - / 0.000                             | - / 0.800                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                                                   | - / 0.000                             | - / 2.540                             |  |
| <i>Subtotal: Installation</i>                                                          | - / 0.000                             | - / 0.348                             | - / 1.392                             | - / -                                 | - / -                                                               | - / -                                 | - / 0.800                             | - / -                                 | - / -                                 | - / -                                                                                       | - / 0.000                             | - / 2.540                             |  |
| <b>Total</b>                                                                           |                                       |                                       |                                       |                                       |                                                                     |                                       |                                       |                                       |                                       |                                                                                             |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                               | <b>0.000</b>                          | <b>2.534</b>                          | <b>1.392</b>                          | <b>1.581</b>                          | <b>0.000</b>                                                        | <b>1.581</b>                          | <b>0.800</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                                                | <b>0.000</b>                          | <b>6.307</b>                          |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                          |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |           |                                |           |                                |                                                       |                                |           |                                |           | <b>Modification Number / Title:</b><br>6 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                                |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Manufacturer Location: Webster Field, St. Inigoes, MD |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                | Production Leadtime (in Months): 12                   |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                             |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Dec 2016                       |           |                                |           |                                |           |                                |           | Jan 2019                                                            |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Dec 2017                       |           |                                |           |                                |           |                                |           | Dec 2019                                                            |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Electronic Drawer Assembly (LCE)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                  |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                                       | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                              |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                       | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                              |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | 2 / 0.348                      |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 2 / 0.348                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | 4 / 1.392                      |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 4 / 1.392                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | 2 / 0.800                      |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 2 / 0.800                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                               |           | - / -                          |           | - / -                          |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | 2 / 0.348                      |           | 4 / 1.392                      |           | - / -                          |           | - / -                                                               |           | - / -                          |           | 2 / 0.800                      |                                                       | - / -                          |           | - / -                          |           | - / -                                                                                       |           | 0 / 0.000                      |           | 8 / 2.540                      |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                      |           |                                |           | <b>FY 2020</b>                 |                                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                             |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                             | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                   | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -          | 2                              | -         | -                              | -         | 4                              | -         | -                              | -         | -                                                                   | -         | -                              | -         | -                              | 1                                                     | 1                              | -         | -                              | -         | -                                                                                           | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 8          |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -          | -                              | -         | 2                              | -         | -                              | -         | 4                              | -         | -                                                                   | -         | -                              | -         | -                              | 1                                                     | 1                              | -         | -                              | -         | -                                                                                           | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 8          |
| <b>Footnotes:</b><br><sup>(14)</sup> AN/SPN-41 Electronic Drawer Assembly (LCE) inventory objective is (20) with 14 procurements and 12 installations occurring in PY - FY16 are funded in BLI 2832. Inventory objective changed from 19 to 20 due to one of the original EDA units that was used, as intended, for initial system testing (including shock and vibe). When completed this type testing usually results in a unit that is damaged beyond acceptable repair. It should not have been counted as an End Item for installation in the Fleet once testing was completed. |            |                                |           |                                |           |                                |           |                                |           |                                                                     |           |                                |           |                                |                                                       |                                |           |                                |           |                                                                                             |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                     |                                                                     |                      |                        |                |                | <b>Date:</b> February 2018                                                               |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>7 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     |                                                                     |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                          |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                           | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                        | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.000              | 1.692          | 0.121          | 0.000               | 0.000                                                               | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                    | 0.000              | 1.813        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                        | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.000              | 1.692          | 0.121          | 0.000               | 0.000                                                               | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                    | 0.000              | 1.813        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                        | -                  | -            |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>0.000</b>       | <b>1.692</b>   | <b>0.121</b>   | <b>0.000</b>        | <b>0.000</b>                                                        | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                             | <b>0.000</b>       | <b>1.813</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                          |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                        | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                   | -                                                                   | -                    | -                      | -              | -              | -                                                                                        | -                  | -            |
| <p><b>Description:</b><br/> AN/SPN-41 Radome Hardware Upgrade (LCE) PN419. The equipment and installation costs on this P-3a are for individual modification programs. This is part of the AN/SPN-41 Life Cycle Extension program. This change will improve overall AN/SPN-41/41A Operational Availability (Ao) by addressing extreme environmental issues currently being experienced by the systems in the field. This change increases overall thermal resistance while decreasing solar absorptivity thereby reducing the ambient operating temperature for the equipment inside the radome, prolonging component life and reducing failure rates.</p> |                    |                |                |                     |                                                                     |                      |                        |                |                |                                                                                          |                    |              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                             |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                               |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9        |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>7 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                          |                                |                                |  |
| <b>Models of Systems Affected:</b> CVNs, LHA/LHD class ships, and selected shore sites |                                |                                |                                | <b>Modification Type:</b> Modernization                             |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                          |                                |                                |  |
| <b>Financial Plan</b>                                                                  | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                           | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                     |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Radome Hardware Upgrade (LCE) PN419         |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| B Kits                                                                                 |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| Recurring                                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| 2.1.1) AN/SPN-41 Radome Hardware Upgrade - NonOrganic <sup>(15)</sup>                  | 3 / 0.000                      | 3 / 1.260                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / -                          | 6 / 1.260                      |  |
| <b>Subtotal: Recurring</b>                                                             | - / 0.000                      | - / 1.260                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / 0.000                      | - / 1.260                      |  |
| <b>Subtotal: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419</b>                         | 3 / 0.000                      | 3 / 1.260                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / -                          | 6 / 1.260                      |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                   | - / 0.000                      | - / 1.260                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / 0.000                      | - / 1.260                      |  |
| <b>Support (All Modification Items)</b>                                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| 3.1) Production Engineering                                                            | - / -                          | - / 0.278                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / -                          | - / 0.278                      |  |
| 3.2) Logistics                                                                         | - / -                          | - / 0.034                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / -                          | - / 0.034                      |  |
| <b>Subtotal: Support</b>                                                               | - / 0.000                      | - / 0.312                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / 0.000                      | - / 0.312                      |  |
| <b>Installation</b>                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Radome Hardware Upgrade (LCE) PN419         | - / 0.000                      | - / 0.120                      | - / 0.121                      | - / 0.000                                                           | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                                | - / 0.000                      | - / 0.241                      |  |
| <b>Subtotal: Installation</b>                                                          | - / 0.000                      | - / 0.120                      | - / 0.121                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                    | - / 0.000                      | - / 0.241                      |  |
| <b>Total</b>                                                                           |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                                          |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                               | 0.000                          | 1.692                          | 0.121                          | 0.000                                                               | 0.000                          | 0.000                          | 0.000                          | 0.000                          | 0.000                          | 0.000                                                                                    | 0.000                          | 1.813                          |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|--------------------------------|-----------|----------------|------------------------------------------------------------------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018             |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                |                                |                                |                                |                                        |                                |                                |           |                | <b>Modification Number / Title:</b><br>7 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/SPN-41 Radome Hardware Upgrade (LCE) PN419                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                | Manufacturer Location: St. Inigoes, MD |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                | Production Leadtime (in Months): 12    |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                      | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Dec 2016                       | Dec 2017                       |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Dec 2017                       | Dec 2018                       |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Radome Hardware Upgrade                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                  | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                         | <b>To Complete</b>             | <b>Total</b>                   |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | - / -                          | 3 / 0.120                      | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | 0 / 0.000                      | 3 / 0.120                      |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | 3 / 0.121                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | 0 / 0.000                      | 3 / 0.121                      |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | - / -                          | 3 / 0.120                      | 3 / 0.121                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | 0 / 0.000                      | 6 / 0.241                      |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>PYS</b>                     | <b>FY 2017</b>                 |                                |                                |                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                         |                                |                                |           | <b>FY 2020</b> |                                                                                          |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                              | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>                                                                                | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                              | 1                              | 2                              | -                              | -                                                                   | 2                              | 1                              | -                              | -                              | -                                      | -                              | -                              | -         | -              | -                                                                                        | -         | -         | -              | -         | -         | -         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 6          |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                              | -                              | 1                              | 2                              | -                                                                   | 2                              | 1                              | -                              | -                              | -                                      | -                              | -                              | -         | -              | -                                                                                        | -         | -         | -              | -         | -         | -         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 6          |
| <b>Footnotes:</b><br><sup>(15)</sup> AN/SPN-41 Radome Hardware Upgrade inventory objective is 18. 15 procurements and 12 installations were funded through FY2016 on BLI 2832. The inventory objective increased from 17 to 18 due to one of the original Radomes that was used, as intended, for initial system testing (including shock and vibe). When completed this type testing usually results in a unit that is damaged beyond acceptable repair. It should not have been counted as an End Item for installation in the Fleet once testing was completed. |                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |           |                |                                                                                          |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                                     |  | <b>Date:</b> February 2018 |  |                                                                       |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |  |                            |  | <b>Modification Number / Title:</b><br>8 / AN/SPN-46 Block IV (PN420) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 1.329   | 13.811  | 21.116       | 0.000       | 21.116          | 22.630  | 14.602  | 14.384  | 10.307  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 1.329   | 13.811  | 21.116       | 0.000       | 21.116          | 22.630  | 14.602  | 14.384  | 10.307  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 1.329   | 13.811  | 21.116       | 0.000       | 21.116          | 22.630  | 14.602  | 14.384  | 10.307  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

The AN/SPN-46 Block IV Precision Approach Landing System (PALS) Block IV upgrade is designed to correct known obsolescence issues in the antenna pedestal, 50KW Ka band modulator/transmitter, and various Circuit Card Assemblies (CCAs). This effort is designed to extend the supportability of the AN/SPN-46 beyond its current design life that has been exceeded. If this effort is not accomplished, replacement parts will not be available to support the fielded AN/SPN-46 systems, thereby, negatively affecting Operational Availability (Ao) and safety of flight on the aircraft carrier. Each BLK IV will be comprised of the upgraded ACIO CCA, 2500 CCA, Transmitter, and Pedestal.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                            |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>8 / AN/SPN-46 Block IV (PN420) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                       |                                |                                |  |
| <b>Models of Systems Affected:</b> CVNs and selected shore sites                |                                |                                |                                | <b>Modification Type:</b> TBD                                       |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                       |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                        | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| <i>Modification Item 1 of 1:</i> AN/SPN-46 Block IV (PN420)                     |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| Recurring                                                                       |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| 1.1.1) AN/SPN-46 Block IV - NonOrganic                                          | - / -                          | - / -                          | 2 / 8.058                      | 4 / 16.600                                                          | - / -                          | 4 / 16.600                     | 4 / 16.982                     | 2 / 8.819                      | 2 / 9.825                      | 1 / 5.001                                                             | 1 / 5.091                      | 16 / 70.376                    |  |
| <i>Subtotal: Recurring</i>                                                      | - / 0.000                      | - / -                          | - / 8.058                      | - / 16.600                                                          | - / -                          | - / 16.600                     | - / 16.982                     | - / 8.819                      | - / 9.825                      | - / 5.001                                                             | - / 5.091                      | - / 70.376                     |  |
| <i>Subtotal: AN/SPN-46 Block IV (PN420)</i>                                     | - / -                          | - / -                          | 2 / 8.058                      | 4 / 16.600                                                          | - / -                          | 4 / 16.600                     | 4 / 16.982                     | 2 / 8.819                      | 2 / 9.825                      | 1 / 5.001                                                             | 1 / 5.091                      | 16 / 70.376                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                      | - / -                          | - / 8.058                      | - / 16.600                                                          | - / -                          | - / 16.600                     | - / 16.982                     | - / 8.819                      | - / 9.825                      | - / 5.001                                                             | - / 5.091                      | - / 70.376                     |  |
| <b>Support (All Modification Items)</b>                                         |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| 2.1) Integrated Logistics Support                                               | - / -                          | - / 0.514                      | - / 2.000                      | - / 1.150                                                           | - / -                          | - / 1.150                      | - / 1.102                      | - / 1.211                      | - / 1.336                      | - / 1.576                                                             | Continuing                     | Continuing                     |  |
| 2.2) Production Engineering                                                     | - / -                          | - / 0.815                      | - / 3.503                      | - / 2.010                                                           | - / -                          | - / 2.010                      | - / 2.047                      | - / 1.946                      | - / 1.769                      | - / 1.999                                                             | Continuing                     | Continuing                     |  |
| 2.3) Quality Assurance                                                          | - / -                          | - / -                          | - / 0.250                      | - / 0.255                                                           | - / -                          | - / 0.255                      | - / 0.260                      | - / 0.265                      | - / 0.270                      | - / 0.142                                                             | Continuing                     | Continuing                     |  |
| <i>Subtotal: Support</i>                                                        | - / 0.000                      | - / 1.329                      | - / 5.753                      | - / 3.415                                                           | - / -                          | - / 3.415                      | - / 3.409                      | - / 3.422                      | - / 3.375                      | - / 3.717                                                             | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| <i>Modification Item 1 of 1:</i> AN/SPN-46 Block IV (PN420)                     | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 1.101                                                           | - / 0.000                      | - / 1.101                      | - / 2.239                      | - / 2.361                      | - / 1.184                      | - / 1.205                                                             | - / 1.214                      | - / 9.304                      |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                      | - / -                          | - / -                          | - / 1.101                                                           | - / -                          | - / 1.101                      | - / 2.239                      | - / 2.361                      | - / 1.184                      | - / 1.205                                                             | - / 1.214                      | - / 9.304                      |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                |                                                                       |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                   | <b>1.329</b>                   | <b>13.811</b>                  | <b>21.116</b>                                                       | <b>0.000</b>                   | <b>21.116</b>                  | <b>22.630</b>                  | <b>14.602</b>                  | <b>14.384</b>                  | <b>10.307</b>                                                         | <b>Continuing</b>              | <b>Continuing</b>              |  |

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|--------------------------------------------------------------------------------------|----------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|-----------------------------------------------------------------------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                           |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018            |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9      |                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                |                                |                                |                                |                                       |                                |                                |                                |                | <b>Modification Number / Title:</b><br>8 / AN/SPN-46 Block IV (PN420) |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                              |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/SPN-46 Block IV (PN420)                          |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                       |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                      |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                       |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Manufacturer Name: Sierra Nevada Corporation                                         |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | Manufacturer Location: Sierra, Nevada |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 4                                               |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | Production Leadtime (in Months): 12   |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Dates</b>                                                                         | <b>FY 2017</b> |                                |                                |                                | <b>FY 2018</b>                                                      |                                |                                |                                | <b>FY 2019</b>                 |                                       |                                |                                | <b>FY 2020</b>                 |                |                                                                       |           | <b>FY 2021</b> |                |           |           | <b>FY 2022</b> |                |           |           | <b>FY 2023</b> |                |           |           |           |           |            |
| Contract Dates                                                                       |                |                                |                                |                                | Jan 2018                                                            |                                |                                |                                | Jan 2019                       |                                       |                                |                                | Jan 2020                       |                |                                                                       |           | Jan 2021       |                |           |           | Jan 2022       |                |           |           | Jan 2023       |                |           |           |           |           |            |
| Delivery Dates                                                                       |                |                                |                                |                                | Jan 2019                                                            |                                |                                |                                | Jan 2020                       |                                       |                                |                                | Jan 2021                       |                |                                                                       |           | Jan 2022       |                |           |           | Jan 2023       |                |           |           | Jan 2024       |                |           |           |           |           |            |
| <b>Installation Information</b>                                                      |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                       |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: Installation Group Name |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                       |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                             |                | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                        | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                      |                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Prior Years                                                                          |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                          | - / -                          | - / -                          |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2017                                                                              |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                          | - / -                          | - / -                          |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2018                                                                              |                | - / -                          | - / -                          | - / -                          | 2 / 1.101                                                           | 0 / 0.000                      | 2 / 1.101                      | - / -                          | - / -                          | - / -                                 | - / -                          | 0 / 0.000                      | 2 / 1.101                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2019                                                                              |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | 4 / 2.239                      | - / -                          | - / -                                 | - / -                          | 0 / 0.000                      | 4 / 2.239                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2020                                                                              |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | 4 / 2.361                      | - / -                                 | - / -                          | 0 / 0.000                      | 4 / 2.361                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2021                                                                              |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 1.184                             | - / -                          | 0 / 0.000                      | 2 / 1.184                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2022                                                                              |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | 2 / 1.205                      | 0 / 0.000                      | 2 / 1.205                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2023                                                                              |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                          | 1 / 0.604                      | 1 / 0.604                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| To Complete                                                                          |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                 | - / -                          | 1 / 0.610                      | 1 / 0.610                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Total                                                                                |                | - / -                          | - / -                          | - / -                          | 2 / 1.101                                                           | 0 / 0.000                      | 2 / 1.101                      | 4 / 2.239                      | 4 / 2.361                      | 2 / 1.184                             | 2 / 1.205                      | 2 / 1.214                      | 16 / 9.304                     |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                         |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                       |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                      | <b>PYS</b>     | <b>FY 2017</b>                 |                                |                                |                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                        |                                |                                |                                | <b>FY 2020</b> |                                                                       |           |                | <b>FY 2021</b> |           |           |                | <b>FY 2022</b> |           |           |                | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                      |                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                             | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                             | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                   | -              | -                              | -                              | -                              | -                                                                   | -                              | -                              | -                              | -                              | -                                     | 1                              | 1                              | -                              | -              | 2                                                                     | 2         | -              | -              | 2         | 2         | -              | -              | 1         | 1         | -              | -              | 1         | 1         | -         | 2         | 16         |
| Out                                                                                  | -              | -                              | -                              | -                              | -                                                                   | -                              | -                              | -                              | -                              | -                                     | 1                              | 1                              | -                              | -              | 2                                                                     | 2         | -              | -              | 2         | 2         | -              | -              | 1         | 1         | -              | -              | 1         | 1         | -         | 2         | 16         |



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|---------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                     | <b>Date:</b> February 2018                                           |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment | <b>Modification Number / Title:</b><br>9 / AN/SPN-35 Block I (PN421) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 0.000   | 0.000   | 1.475        | 0.000       | 1.475           | 5.289   | 9.472   | 10.680  | 11.783  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 0.000   | 0.000   | 1.475        | 0.000       | 1.475           | 5.289   | 9.472   | 10.680  | 11.783  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 0.000   | 0.000   | 1.475        | 0.000       | 1.475           | 5.289   | 9.472   | 10.680  | 11.783  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

This modification upgrades the AN/SPN-35C to Block 1. AN/SPN-35C is the Precision Approach Radar aboard LHA/LHD class ships and is used for Mode III aircraft recovery which ensures the safe approach and landing of fixed-wing aircraft and various helicopters during adverse weather & night conditions. The AN/SPN-35C Block I upgrade includes replacement of common failure items, obsolete components, and analog system components. Block I will ensure the availability of, and extend the service life of the AN/SPN-35. The inventory objective for this item is 16. PMA-213 configuration control board approves inventory objectives.

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|---------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   | <b>Date:</b> February 2018                                           |                                   |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                   |                                   |                                   |                                   | <b>Modification Number / Title:</b><br>9 / AN/SPN-35 Block I (PN421) |                                   |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                                                      |                                   |                                   |                                   |  |
| <b>Models of Systems Affected:</b> LHA/LHD class ships                          |                                   |                                   |                                   | <b>Modification Type:</b> TBD                                       |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b>     |                                                                      |                                   |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                    | <b>FY 2022</b>                                                       | <b>FY 2023</b>                    | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                   | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                    | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-35 Block I (PN421)                      |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| Recurring                                                                       |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| 2.1.1) AN/SPN-35 Block I - NonOrganic                                           | - / -                             | - / -                             | - / -                             | - / -                                                               | - / -                             | - / -                             | 2 / 3.600                         | 3 / 5.562                         | 3 / 5.662                                                            | 3 / 5.764                         | 5 / 9.780                         | 16 / 30.368                       |  |
| Subtotal: Recurring                                                             | - / 0.000                         | - / -                             | - / -                             | - / -                                                               | - / -                             | - / -                             | - / 3.600                         | - / 5.562                         | - / 5.662                                                            | - / 5.764                         | - / 9.780                         | - / 30.368                        |  |
| Subtotal: AN/SPN-35 Block I (PN421)                                             | - / -                             | - / -                             | - / -                             | - / -                                                               | - / -                             | - / -                             | 2 / 3.600                         | 3 / 5.562                         | 3 / 5.662                                                            | 3 / 5.764                         | 5 / 9.780                         | 16 / 30.368                       |  |
| Subtotal: Procurement, All Modification Items                                   | - / 0.000                         | - / -                             | - / -                             | - / -                                                               | - / -                             | - / -                             | - / 3.600                         | - / 5.562                         | - / 5.662                                                            | - / 5.764                         | - / 9.780                         | - / 30.368                        |  |
| <b>Support (All Modification Items)</b>                                         |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| 3.1) Integrated Logistics <sup>(16)</sup>                                       | - / -                             | - / -                             | - / -                             | - / 0.450                                                           | - / -                             | - / 0.450                         | - / 0.506                         | - / 0.389                         | - / 0.382                                                            | - / 0.375                         | Continuing                        | Continuing                        |  |
| 3.2) Production Engineering <sup>(17)</sup>                                     | - / -                             | - / -                             | - / -                             | - / 1.025                                                           | - / -                             | - / 1.025                         | - / 1.158                         | - / 1.892                         | - / 2.182                                                            | - / 3.143                         | Continuing                        | Continuing                        |  |
| Subtotal: Support                                                               | - / 0.000                         | - / -                             | - / -                             | - / 1.475                                                           | - / -                             | - / 1.475                         | - / 1.664                         | - / 2.281                         | - / 2.564                                                            | - / 3.518                         | Continuing                        | Continuing                        |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/SPN-35 Block I (PN421)                      | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                                                           | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 1.564                         | - / 2.388                                                            | - / 2.433                         | - / 6.680                         | - / 13.065                        |  |
| Subtotal: Installation                                                          | - / 0.000                         | - / -                             | - / -                             | - / -                                                               | - / -                             | - / -                             | - / -                             | - / 1.564                         | - / 2.388                                                            | - / 2.433                         | - / 6.680                         | - / 13.065                        |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                                     |                                   |                                   |                                   |                                   |                                                                      |                                   |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>1.475</b>                                                        | <b>0.000</b>                      | <b>1.475</b>                      | <b>5.289</b>                      | <b>9.472</b>                      | <b>10.680</b>                                                        | <b>11.783</b>                     | <b>Continuing</b>                 | <b>Continuing</b>                 |  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|----------------------------------------------------------------------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                     |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018             |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                |                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2830 / Afloat ATC Equipment |                                |                                |                                |                                |                                        |                                |                                |                                |                | <b>Modification Number / Title:</b><br>9 / AN/SPN-35 Block I (PN421) |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                        |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/SPN-35 Block I (PN421)                                                                                                                                                                                                                                                                                     |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD                                                                                                                                                                                                                                                                                                                      |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | Manufacturer Location: St. Inigoes, MD |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                         |                |                                |                                |                                |                                                                     |                                |                                |                                |                                | Production Leadtime (in Months): 12    |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                   | <b>FY 2017</b> |                                |                                |                                | <b>FY 2018</b>                                                      |                                |                                |                                | <b>FY 2019</b>                 |                                        |                                |                                | <b>FY 2020</b>                 |                |                                                                      |           | <b>FY 2021</b> |                |           |           | <b>FY 2022</b> |                |           |           | <b>FY 2023</b> |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                 |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                | Dec 2019                       |                |                                                                      |           | Dec 2020       |                |           |           | Dec 2021       |                |           |           | Dec 2022       |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                 |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                | Dec 2020                       |                |                                                                      |           | Dec 2021       |                |           |           | Dec 2022       |                |           |           | Dec 2023       |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team AIT:: Installation Name: AN/SPN-35 Block I                                                                                                                                                                                                                                       |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                       |                | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                         | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                |                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                    |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          | - / -                          |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          | - / -                          |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          | - / -                          |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                          | - / -                          |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | 0 / 0.000                      | 2 / 1.564                      |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | 0 / 0.000                      | 3 / 2.388                      |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | 0 / 0.000                      | 3 / 2.433                      |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                        |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | 3 / 2.477                      | 5 / 4.203                      |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                    |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | 5 / 4.203                      | 16 / 13.065                    |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                          |                | - / -                          | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | 8 / 6.680                      | 16 / 13.065                    |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                   |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                | <b>PYS</b>     | <b>FY 2017</b>                 |                                |                                |                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                         |                                |                                |                                | <b>FY 2020</b> |                                                                      |           |                | <b>FY 2021</b> |           |           |                | <b>FY 2022</b> |           |           |                | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                |                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                              | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                            | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                             | -              | -                              | -                              | -                              | -                                                                   | -                              | -                              | -                              | -                              | -                                      | -                              | -                              | -                              | -              | -                                                                    | -         | -              | -              | 1         | 1         | -              | -              | 1         | 1         | 1              | 1              | 1         | 1         | -         | 8         | 16         |
| Out                                                                                                                                                                                                                                                                                                                                            | -              | -                              | -                              | -                              | -                                                                   | -                              | -                              | -                              | -                              | -                                      | -                              | -                              | -                              | -              | -                                                                    | -         | -              | -              | 1         | 1         | -              | -              | 1         | 1         | 1              | 1              | 1         | 1         | -         | 8         | 16         |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                              |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| (16) ILS costs beginning in FY19 include identifying projected system installation requirements, modification adjustments, preparation for integration planning, and drawing support efforts. Preparing for the receipt, integration, and installation of future, identified equipment often requires significant planning.                    |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| (17) Production engineering costs beginning in FY19 include identifying projected system installation requirements, modification adjustments, preparation for integration planning, and drawing support efforts. Preparing for the receipt, integration, and installation of future, identified equipment often requires significant planning. |                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                        |                                |                                |                                |                |                                                                      |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|----------------------------------------------------|---------|------------------------------------------|---------|---------|-------------|---------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |                                        |              |             |                                                    |         | Date: February 2018                      |         |         |             |         |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>2851 / ID Systems |         |                                          |         |         |             |         |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |         | Program Elements for Code B Items: N/A |              |             |                                                    |         | Other Related Program Elements: 0604777N |         |         |             |         |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |         |                                        |              |             |                                                    |         |                                          |         |         |             |         |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                      | FY 2020 | FY 2021                                  | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -                                                  | -       | -                                        | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 298.229     | 22.177  | 21.239                                 | 26.163       | 0.000       | 26.163                                             | 26.139  | 25.463                                   | 49.655  | 57.497  | 348.665     | 875.227 |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -                                      | -            | -           | -                                                  | -       | -                                        | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 298.229     | 22.177  | 21.239                                 | 26.163       | 0.000       | 26.163                                             | 26.139  | 25.463                                   | 49.655  | 57.497  | 348.665     | 875.227 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -                                      | -            | -           | -                                                  | -       | -                                        | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 298.229     | 22.177  | 21.239                                 | 26.163       | 0.000       | 26.163                                             | 26.139  | 25.463                                   | 49.655  | 57.497  | 348.665     | 875.227 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |                                                    |         |                                          |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | 0.076   | 0.146                                  | -            | -           | -                                                  | -       | -                                        | -       | -       | -           | 0.222   |
| Flyaway Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -           | -       | -                                      | -            | -           | -                                                  | -       | -                                        | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -                                      | -            | -           | -                                                  | -       | -                                        | -       | -       | -           | -       |
| Description:<br>The Identification Systems program funds procurements, installations, and certifications for the following Mark XII / Mark XIIA systems: AN/UPX-37, AN/UPX-41, and AN/UPX-45 Digital Interrogators (DIs), AN/APX-118 and AN/APX-123 Common Digital Transponders (CXPs), AN/UPX-29 Interrogator System (comprised of Interrogator Set AN/UPX-24, OE-120()/UPX Antenna Group, and Mark XII or Mark XIIA equipment), AN/UPX-46 Interrogator System (comprised of CP-2819/UPX Processor and Mark XIIA equipment), Identification Friend or Foe (IFF) support equipment, AN/UPX-34A Radar Track Discriminator System (RTDS), and AN/URN-25 Ship Tactical Air Navigation (TACAN). TACAN moves out of BLI 2851 to BLI 2820 in FY 2019. The OE-120()/UPX Antenna is a new start in FY 2019.<br><br>The Air Traffic Control Radio Beacon System, IFF, Mark XII/XIIA System (AIMS) is a DoD directed tri-service program designed to provide a universal air traffic control radar beacon system compatible with the National Airspace System program. It provides a secure identification system for military use on all combatant ships, selected auxiliaries, patrol craft, and selected Coast Guard ships by allowing all friendly forces to identify each other and neutral forces. The Mark XII/XIIA system supports several missions such as anti-air warfare, aerial bombardment, and naval attack.<br><br>The OE-120()/UPX antenna is a new start in FY 2019. The antenna radiates Identification Friend or Foe (IFF) encoded radio frequency (RF) challenge pulses into space and receives the resultant IFF encoded RF transponder replies from space. Current surface ship OE-120()/UPX antenna systems will receive upgrade kits to improve system R&M. The upgrade kits will use open architecture and current technology that allows for continued production and future growth Inventory Objective of 61 is derived from the Naval Data Environment database, the Ships & Aircraft Supplemental Data Table, and procurement plans and schedules. An Engineering Change Proposal has been awarded using RDT&E (PU 0676) funds for the Original Equipment Manufacturer to deliver an Engineering Design Model for shipboard test and evaluation in fiscal year 2018. |             |         |                                        |              |             |                                                    |         |                                          |         |         |             |         |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                     |  |  |                                               |  | <b>Date:</b> February 2018                                |                                                 |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment |  |  |                                               |  | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                                 |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                              |  |  | <b>Program Elements for Code B Items:</b> N/A |  |                                                           | <b>Other Related Program Elements:</b> 0604777N |  |  |  |

**Line Item MDAP/MAIS Code:** N/A

| Exhibits Schedule |                                                                              |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                       | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-3a              | 1 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) (Reliability)     |             |       |                | - / 57.473                               | - / 1.209                                | - / 1.218                                | - / 0.966                                | - / 0.000                                | - / 0.966                                |
| P-3a              | 2 / AN/UPX 24 (V) Mode S (MT035) (Capability Improvement)                    |             |       |                | - / 31.858                               | - / 5.059                                | - / 6.025                                | - / 6.287                                | - / 0.000                                | - / 6.287                                |
| P-3a              | 3 / Mark XII Mode 5 (MT037) (Capability Improvement)                         |             |       |                | - / 150.279                              | - / 12.884                               | - / 10.554                               | - / 8.173                                | - / 0.000                                | - / 8.173                                |
| P-3a              | 4 / TACAN System Upgrade (MT038) (Reliability)                               |             |       |                | - / 26.176                               | - / 1.127                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 5 / Mode S Digital Interrogator (MT040) (Capability Improvement)             |             |       |                | - / 32.443                               | - / 1.898                                | - / 3.442                                | - / 5.345                                | - / 0.000                                | - / 5.345                                |
| P-3a              | 6 / OE-120/UPX Antenna (MT041) (Reliability)                                 |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 5.392                                | - / 0.000                                | - / 5.392                                |
| P-3a              | 7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) (Reliability)              |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 8 / Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043) (Reliability) |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 9 / AN/UPX-36 (MT044) (Reliability)                                          |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                        |             |       |                | - / 298.229                              | - / 22.177                               | - / 21.239                               | - / 26.163                               | - / 0.000                                | - / 26.163                               |

| Exhibits Schedule |                                                                              |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                       | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-3a              | 1 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) (Reliability)     |             |       |                | - / 0.433                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 61.299                               |
| P-3a              | 2 / AN/UPX 24 (V) Mode S (MT035) (Capability Improvement)                    |             |       |                | - / 6.916                                | - / 7.985                                | - / 8.424                                | - / 10.952                               | - / 26.244                               | - / 109.750                              |
| P-3a              | 3 / Mark XII Mode 5 (MT037) (Capability Improvement)                         |             |       |                | - / 2.682                                | - / 0.594                                | - / 0.890                                | - / 0.618                                | - / 2.808                                | - / 189.482                              |
| P-3a              | 4 / TACAN System Upgrade (MT038) (Reliability)                               |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 27.303                               |
| P-3a              | 5 / Mode S Digital Interrogator (MT040) (Capability Improvement)             |             |       |                | - / 5.349                                | - / 5.938                                | - / 7.618                                | - / 6.493                                | - / 23.204                               | - / 91.730                               |
| P-3a              | 6 / OE-120/UPX Antenna (MT041) (Reliability)                                 |             |       |                | - / 10.759                               | - / 10.946                               | - / 14.740                               | - / 15.408                               | - / 193.022                              | - / 250.267                              |
| P-3a              | 7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) (Reliability)              |             |       |                | - / 0.000                                | - / 0.000                                | - / 17.983                               | - / 12.380                               | - / 53.574                               | - / 83.937                               |
| P-3a              | 8 / Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043) (Reliability) |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 3.082                                | - / 15.420                               | - / 18.502                               |
| P-3a              | 9 / AN/UPX-36 (MT044) (Reliability)                                          |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 8.564                                | - / 34.393                               | - / 42.957                               |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                        |             |       |                | - / 26.139                               | - / 25.463                               | - / 49.655                               | - / 57.497                               | - / 348.665                              | - / 875.227                              |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

The purpose of the AN/UPX-37 and AN/UPX-41(C) Digital Interrogators (DI) and AN/APX-118 and AN/APX-123 Common Digital Transponder (CXP) program is to replace 20-25 year old hardware and software with reliability and maintenance enhancements through the use of Commercial Off The Shelf / Non Developmental Item COTS/NDI form/fit/function improvements. Incorporation of the Mark XIIA (Mode S) capability occurred in FY08 and changes nomenclatures from AN/UPX-37 and AN/APX-118(V) to AN/UPX-41(C) and AN/APX-123(V), respectively. Incorporation of the Mark XIIA (Mode S) capability into the AN/UPX-41(C) DI is currently ongoing and will change the DI nomenclature from AN/UPX-41(C) to AN/UPX-45(C).

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               | <b>Date:</b> February 2018                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0604777N           |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                               |                                                           |
| <p>AN/UPX-24(V) Field Changes will provide hardware updates to accommodate Mode 5 and Mode S functionality in fielded systems. AN/UPX-24(V) Mode S upgrades will provide improved shipboard combat identification by increasing the probability of identification of commercial and neutral aircraft. The AN/UPX-29(V) Interrogator System is deployed on high capability, state of the art surface platforms that require IFF operational performance beyond that provided by a standard Mark XII system for combat identification. Mark XIIA Mode 5 and Mode S provide improved secure cooperative combat identification throughout IFF. Mode 5 and Mode S are product improvements designed to be installed through engineering changes to digital Mark XII interrogators and transponders including AN/APX-118/123(V), AN/UPX-37/41(C), and AN/UPX-24(V).</p> <p>Tactical Air Navigation (TACAN) Beacon Upgrade funds a replacement of 1970s technology and eliminates pending parts obsolescence. TACAN moves out of BLI 2851 to BLI 2820 in FY19.</p> <p>AN/UPX-46 field changes will provide hardware updates to IFF Interrogator Systems fielded on LCS 1 and LCS 2 ship class variants, and LSD 41 and LSD 49 ship classes. The hardware updates will reduce unique IFF Interrogator Systems by installing common hardware configurations with Mark XIIA capability.</p> <p>AN/UPX-34A Radar Track Discriminator System (RTDS) field changes will provide hardware and software upgrades to fielded systems that will increase system performance and incorporate "other service" target libraries into the system's target database. The RTDS is a Non-Cooperative Target Recognition (NCTR) system.</p> <p>The FY 2019 funding request was reduced by \$0.151 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> |                                               |                                                           |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|-----------------------------------------------------------|----------------------|------------------------|----------------|----------------|---------------------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                     |                                                           |                      |                        |                |                | <b>Date:</b> February 2018                                                                        |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                |                     |                                                           |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                   |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                        | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                    | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                 | -                  | -             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 57.473             | 1.209          | 1.218          | 0.966               | 0.000                                                     | 0.966                | 0.433                  | 0.000          | 0.000          | 0.000                                                                                             | 0.000              | 61.299        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                 | -                  | -             |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 57.473             | 1.209          | 1.218          | 0.966               | 0.000                                                     | 0.966                | 0.433                  | 0.000          | 0.000          | 0.000                                                                                             | 0.000              | 61.299        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                 | -                  | -             |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>57.473</b>      | <b>1.209</b>   | <b>1.218</b>   | <b>0.966</b>        | <b>0.000</b>                                              | <b>0.966</b>         | <b>0.433</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                      | <b>0.000</b>       | <b>61.299</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                     |                                                           |                      |                        |                |                |                                                                                                   |                    |               |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                 | -                  | -             |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                 | -                  | -             |
| <p><b>Description:</b></p> <p>Current Mark XII transponder systems no longer meet operational reliability and maintainability (R&amp;M) requirements due to use beyond their intended life cycle and they suffer a high cost of ownership due to parts obsolescence. Current surface ship Mark XII transponders will be replaced to continue incremental digital and R&amp;M upgrades to the Mark XII IFF system. The common digital transponder uses an open architecture that allows for future growth, including Mode 5 (AN/APX-123(V)) and Mode S which was incorporated into the production line beginning with the FY 2005 procurement. Inventory Objective of 375 is derived from the Naval Data Environment (NDE) database, the Ships &amp; Aircraft Supplemental Data Table (SASDT) and ship/submarine Ship Program Manager (SPM) procurement plans and schedules. Incorporation of the Mark XIIA (Mode 5) capability occurred in FY08 and changed the nomenclature from AN/APX-118(V) to AN/APX-123(V). LRIP AN/APX-123(V) units were installed and operated in legacy-only modes until successful completion of the Mode 5 OPEVAL (MT037) and Full Rate Production decision. Full Rate Production was approved July 2012.</p> |                    |                |                |                     |                                                           |                      |                        |                |                |                                                                                                   |                    |               |



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|-----------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------|-----------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                              |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                        |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9         |                                |                                |                                |                                       | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>1 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                 |                                |                                |                                |                                       |                                                           |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                                   |                                |                                |  |
| <b>Models of Systems Affected:</b> AN/APX-118/AN/APX-123(V)                             |                                |                                |                                | <b>Modification Type:</b> Reliability |                                                           |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604777N |                                |                                                                                                   |                                |                                |  |
| <b>Financial Plan</b>                                                                   | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                        | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                    | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                      |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Mark XII/ Mark XIIA Common Digital Transponder (MT032) |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| B Kits                                                                                  |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| Recurring                                                                               |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| 1.1.1) Equipment - NonOrganic <sup>(1)</sup>                                            | 357 / 19.937                   | 5 / 0.132                      | 8 / 0.154                      | 5 / 0.104                             | - / -                                                     | 5 / 0.104                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | 375 / 20.327                   |  |
| <i>Subtotal: Recurring</i>                                                              | - / 19.937                     | - / 0.132                      | - / 0.154                      | - / 0.104                             | - / -                                                     | - / 0.104                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / 0.000                      | - / 20.327                     |  |
| <i>Subtotal: Mark XII/ Mark XIIA Common Digital Transponder (MT032)</i>                 | 357 / 19.937                   | 5 / 0.132                      | 8 / 0.154                      | 5 / 0.104                             | - / -                                                     | 5 / 0.104                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | 375 / 20.327                   |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                    | - / 19.937                     | - / 0.132                      | - / 0.154                      | - / 0.104                             | - / -                                                     | - / 0.104                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / 0.000                      | - / 20.327                     |  |
| <b>Support (All Modification Items)</b>                                                 |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| 2.1) ILS                                                                                | - / 2.887                      | - / 0.073                      | - / 0.030                      | - / 0.013                             | - / -                                                     | - / 0.013                      | - / 0.005                      | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | - / 3.008                      |  |
| 2.2) PE <sup>(2)</sup>                                                                  | - / 15.039                     | - / 0.778                      | - / 0.456                      | - / 0.627                             | - / -                                                     | - / 0.627                      | - / 0.284                      | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | - / 17.184                     |  |
| 2.3) Product Improvement                                                                | - / 4.632                      | - / -                          | - / -                          | - / -                                 | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | - / 4.632                      |  |
| 2.4) Acceptance, Test & Evaluation                                                      | - / 2.761                      | - / -                          | - / 0.045                      | - / 0.020                             | - / -                                                     | - / 0.020                      | - / 0.008                      | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | - / 2.834                      |  |
| 2.5) Depot                                                                              | - / 0.010                      | - / -                          | - / -                          | - / -                                 | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | - / 0.010                      |  |
| 2.6) Initial Training                                                                   | - / 0.822                      | - / -                          | - / -                          | - / -                                 | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                             | - / -                          | - / 0.822                      |  |
| <i>Subtotal: Support</i>                                                                | - / 26.151                     | - / 0.851                      | - / 0.531                      | - / 0.660                             | - / -                                                     | - / 0.660                      | - / 0.297                      | - / -                                  | - / -                          | - / -                                                                                             | - / 0.000                      | - / 28.490                     |  |
| <b>Installation</b>                                                                     |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Mark XII/ Mark XIIA Common Digital Transponder (MT032) | - / 11.385                     | - / 0.226                      | - / 0.533                      | - / 0.202                             | - / 0.000                                                 | - / 0.202                      | - / 0.136                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                         | - / 0.000                      | - / 12.482                     |  |
| <i>Subtotal: Installation</i>                                                           | - / 11.385                     | - / 0.226                      | - / 0.533                      | - / 0.202                             | - / -                                                     | - / 0.202                      | - / 0.136                      | - / -                                  | - / -                          | - / -                                                                                             | - / 0.000                      | - / 12.482                     |  |
| <b>Total</b>                                                                            |                                |                                |                                |                                       |                                                           |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                | <b>57.473</b>                  | <b>1.209</b>                   | <b>1.218</b>                   | <b>0.966</b>                          | <b>0.000</b>                                              | <b>0.966</b>                   | <b>0.433</b>                   | <b>0.000</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                                      | <b>0.000</b>                   | <b>61.299</b>                  |  |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------|-----------|-------------------------------------------------|-----------|-------------------------------------------------|-----------|-------------------------------------------------|-----------|-----------------------------------------------------------|-----------|-------------------------------------------------|-----------|-------------------------------------------------|---------------------------------------------|-------------------------------------------------|-----------|-------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------|-----------|-------------------------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|-----|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           | <b>Date:</b> February 2018                                |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           | <b>Modification Number / Title:</b><br>1 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 | <b>MDAP/MAIS Code:</b>                      |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Modification Item 1 of 1:</b> Mark XII/ Mark XIIA Common Digital Transponder (MT032)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| Manufacturer Name: BAE Systems LP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 | Manufacturer Location: Greenlawn, NY        |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| Administrative Leadtime ( <i>in Months</i> ): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 | Production Leadtime ( <i>in Months</i> ): 6 |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>FY 2017</b>                                  |           |                                                 |           | <b>FY 2018</b>                                  |           |                                                 |           | <b>FY 2019</b>                                            |           |                                                 |           | <b>FY 2020</b>                                  |                                             |                                                 |           | <b>FY 2021</b>                                  |           |                                                                                                   |           | <b>FY 2022</b>                                  |           |                                                 |           | <b>FY 2023</b> |           |           |           |           |            |     |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Dec 2016                                        |           |                                                 |           | Dec 2017                                        |           |                                                 |           | Dec 2018                                                  |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Jun 2017                                        |           |                                                 |           | Jun 2018                                        |           |                                                 |           | Jun 2019                                                  |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | <b>Prior Years</b>                              |           | <b>FY 2017</b>                                  |           | <b>FY 2018</b>                                  |           | <b>FY 2019 Base</b>                             |           | <b>FY 2019 OCO</b>                                        |           | <b>FY 2019 Total</b>                            |           | <b>FY 2020</b>                                  |                                             | <b>FY 2021</b>                                  |           | <b>FY 2022</b>                                  |           | <b>FY 2023</b>                                                                                    |           | <b>To Complete</b>                              |           | <b>Total</b>                                    |           |                |           |           |           |           |            |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> )           |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |                                             | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> )                                                   |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           | Qty ( <i>Each</i> ) / Total Cost (\$ <i>M</i> ) |           |                |           |           |           |           |            |     |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | 348 / 11.385                                    |           | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | 0 / 0.000                                       |           | 348 / 11.385                                    |           |                |           |           |           |           |            |     |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | 5 / 0.226                                       |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | 0 / 0.000                                       |           | 5 / 0.226                                       |           |                |           |           |           |           |            |     |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | - / -                                           |           | 8 / 0.533                                       |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | 0 / 0.000                                       |           | 8 / 0.533                                       |           |                |           |           |           |           |            |     |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | - / -                                           |           | - / -                                           |           | 3 / 0.202                                       |           | 0 / 0.000                                                 |           | 3 / 0.202                                       |           | 2 / 0.136                                       |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | 0 / 0.000                                       |           | 5 / 0.338                                       |           |                |           |           |           |           |            |     |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | - / -                                           |           | - / -                                           |           |                |           |           |           |           |            |     |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | - / -                                           |           | - / -                                           |           |                |           |           |           |           |            |     |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | - / -                                           |           | - / -                                           |           |                |           |           |           |           |            |     |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | - / -                                           |           | - / -                                           |           |                |           |           |           |           |            |     |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                           |           | - / -                                                     |           | - / -                                           |           | - / -                                           |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | - / -                                           |           | - / -                                           |           |                |           |           |           |           |            |     |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | 348 / 11.385                                    |           | 5 / 0.226                                       |           | 8 / 0.533                                       |           | 3 / 0.202                                       |           | 0 / 0.000                                                 |           | 3 / 0.202                                       |           | 2 / 0.136                                       |                                             | - / -                                           |           | - / -                                           |           | - / -                                                                                             |           | 0 / 0.000                                       |           | 366 / 12.482                                    |           |                |           |           |           |           |            |     |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                                  |           |                                                 |           | <b>FY 2018</b>                                  |           |                                                 |           | <b>FY 2019</b>                                            |           |                                                 |           | <b>FY 2020</b>                                  |                                             |                                                 |           | <b>FY 2021</b>                                  |           |                                                                                                   |           | <b>FY 2022</b>                                  |           |                                                 |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Q1</b>                                       | <b>Q2</b> | <b>Q3</b>                                       | <b>Q4</b> | <b>Q1</b>                                       | <b>Q2</b> | <b>Q3</b>                                       | <b>Q4</b> | <b>Q1</b>                                                 | <b>Q2</b> | <b>Q3</b>                                       | <b>Q4</b> | <b>Q1</b>                                       | <b>Q2</b>                                   | <b>Q3</b>                                       | <b>Q4</b> | <b>Q1</b>                                       | <b>Q2</b> | <b>Q3</b>                                                                                         | <b>Q4</b> | <b>Q1</b>                                       | <b>Q2</b> | <b>Q3</b>                                       | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |     |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 348        | -                                               | -         | 3                                               | 2         | -                                               | 3         | 3                                               | 2         | -                                                         | -         | 1                                               | 2         | 2                                               | -                                           | -                                               | -         | -                                               | -         | -                                                                                                 | -         | -                                               | -         | -                                               | -         | -              | -         | -         | -         | -         | -          | 366 |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 348        | -                                               | -         | 3                                               | 2         | -                                               | 3         | 3                                               | 2         | -                                                         | -         | 1                                               | 2         | 2                                               | -                                           | -                                               | -         | -                                               | -         | -                                                                                                 | -         | -                                               | -         | -                                               | -         | -              | -         | -         | -         | -         | -          | 366 |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |
| <sup>(1)</sup> Due to prioritization of this modification, procurement of B-kits was accelerated in order to more quickly outfit the fleet and obtain economies of scale in pricing. As a result, the quantities reflected in FY16-19 are for the ancillary hardware kits required to be provided with the previously purchased B-kits in the year the installations take place. Ancillary hardware procurements only require a 6 month production lead time. Current inventory objective is 375, which includes 9 additional units purchased in the prior years to provide to the Mode 5 program contractor as GFE. These units will not be installed. |            |                                                 |           |                                                 |           |                                                 |           |                                                 |           |                                                           |           |                                                 |           |                                                 |                                             |                                                 |           |                                                 |           |                                                                                                   |           |                                                 |           |                                                 |           |                |           |           |           |           |            |     |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                         |                                                           | <b>Date:</b> February 2018                                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                    | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>1 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                            |                                                           | <b>MDAP/MAIS Code:</b>                                                                            |
| <div>(2) Class and Baselines of ships are a significant contributor to the amount required for Production Engineering (PE) to accomplish the IFF capability.</div> |                                                           |                                                                                                   |

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|---------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>2 / AN/UPX 24 (V) Mode S (MT035) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 31.858      | 5.059   | 6.025   | 6.287        | 0.000       | 6.287           | 6.916   | 7.985   | 8.424   | 10.952  | 26.244      | 109.750 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 31.858      | 5.059   | 6.025   | 6.287        | 0.000       | 6.287           | 6.916   | 7.985   | 8.424   | 10.952  | 26.244      | 109.750 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                            | 31.858      | 5.059   | 6.025   | 6.287        | 0.000       | 6.287           | 6.916   | 7.985   | 8.424   | 10.952  | 26.244      | 109.750 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

Incorporation of a Mode S capability in the AN/UPX-24(V) to include an interface with a ship's Combat Systems. Inventory Objective of 123 is derived from the Naval Data Environment database, the Ships & Aircraft Supplemental Data Table and ship/submarine Ship Program Manager procurement plans and schedules.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        | <b>Date:</b> February 2018                                              |                                   |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                   |                                   |                                   |                                        | <b>Modification Number / Title:</b><br>2 / AN/UPX 24 (V) Mode S (MT035) |                                   |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                           |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Models of Systems Affected:</b> AN/UPX-24(V)                                 |                                   |                                   |                                   | <b>Modification Type:</b> Capability Improvement          |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0604777N |                                                                         |                                   |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                                                          | <b>FY 2023</b>                    | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                         | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M)                                       | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/UPX 24 (V) Mode S (MT035)                   |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| Non-Recurring                                                                   |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| 1.1.1) Equipment - NonOrganic <sup>(3)</sup>                                    | 14 / 1.431                        | 4 / 0.431                         | 4 / 0.686                         | 8 / 1.426                                                 | - / -                             | 8 / 1.426                         | 8 / 1.427                         | 18 / 3.276                             | 16 / 2.970                                                              | 25 / 4.731                        | 26 / 6.088                        | 123 / 22.466                      |  |
| <i>Subtotal: Non-Recurring</i>                                                  | - / 1.431                         | - / 0.431                         | - / 0.686                         | - / 1.426                                                 | - / -                             | - / 1.426                         | - / 1.427                         | - / 3.276                              | - / 2.970                                                               | - / 4.731                         | - / 6.088                         | - / 22.466                        |  |
| <i>Subtotal: AN/UPX 24 (V) Mode S (MT035)</i>                                   | 14 / 1.431                        | 4 / 0.431                         | 4 / 0.686                         | 8 / 1.426                                                 | - / -                             | 8 / 1.426                         | 8 / 1.427                         | 18 / 3.276                             | 16 / 2.970                                                              | 25 / 4.731                        | 26 / 6.088                        | 123 / 22.466                      |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 1.431                         | - / 0.431                         | - / 0.686                         | - / 1.426                                                 | - / -                             | - / 1.426                         | - / 1.427                         | - / 3.276                              | - / 2.970                                                               | - / 4.731                         | - / 6.088                         | - / 22.466                        |  |
| <b>Support (All Modification Items)</b>                                         |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| 2.1) ILS                                                                        | - / 2.569                         | - / 0.128                         | - / 0.518                         | - / 0.617                                                 | - / -                             | - / 0.617                         | - / 0.618                         | - / 0.797                              | - / 0.786                                                               | - / 1.006                         | - / 2.888                         | - / 9.927                         |  |
| 2.2) PE <sup>(4)</sup>                                                          | - / 6.987                         | - / 0.916                         | - / 1.837                         | - / 2.059                                                 | - / -                             | - / 2.059                         | - / 2.569                         | - / 3.021                              | - / 3.141                                                               | - / 3.632                         | - / 11.914                        | - / 36.076                        |  |
| 2.3) Product Improvement <sup>(5)</sup>                                         | - / 18.948                        | - / 3.493                         | - / 2.739                         | - / 1.919                                                 | - / -                             | - / 1.919                         | - / 1.677                         | - / 0.200                              | - / -                                                                   | - / -                             | - / -                             | - / 28.976                        |  |
| 2.4) Acceptance, Test & Evaluation                                              | - / 1.215                         | - / -                             | - / 0.020                         | - / 0.040                                                 | - / -                             | - / 0.040                         | - / 0.041                         | - / 0.042                              | - / 0.091                                                               | - / 0.092                         | - / 0.316                         | - / 1.857                         |  |
| 2.5) Depot                                                                      | - / 0.046                         | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | - / 0.046                         |  |
| 2.6) Initial Training                                                           | - / 0.274                         | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | - / 0.274                         |  |
| <i>Subtotal: Support</i>                                                        | - / 30.039                        | - / 4.537                         | - / 5.114                         | - / 4.635                                                 | - / -                             | - / 4.635                         | - / 4.905                         | - / 4.060                              | - / 4.018                                                               | - / 4.730                         | - / 15.118                        | - / 77.156                        |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/UPX 24 (V) Mode S (MT035)                   | - / 0.388                         | - / 0.091                         | - / 0.225                         | - / 0.226                                                 | - / 0.000                         | - / 0.226                         | - / 0.584                         | - / 0.649                              | - / 1.436                                                               | - / 1.491                         | - / 5.038                         | - / 10.128                        |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.388                         | - / 0.091                         | - / 0.225                         | - / 0.226                                                 | - / -                             | - / 0.226                         | - / 0.584                         | - / 0.649                              | - / 1.436                                                               | - / 1.491                         | - / 5.038                         | - / 10.128                        |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>31.858</b>                     | <b>5.059</b>                      | <b>6.025</b>                      | <b>6.287</b>                                              | <b>0.000</b>                      | <b>6.287</b>                      | <b>6.916</b>                      | <b>7.985</b>                           | <b>8.424</b>                                                            | <b>10.952</b>                     | <b>26.244</b>                     | <b>109.750</b>                    |  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------|-----------|--------------------------------|-----------|----------------------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                                           |           |                                |           | <b>Date:</b> February 2018                   |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |           |                                |           |                                              |           |                                |           | <b>Modification Number / Title:</b><br>2 / AN/UPX 24 (V) Mode S (MT035) |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                                           |           |                                |           | <b>MDAP/MAIS Code:</b>                       |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/UPX 24 (V) Mode S (MT035)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                              |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                              |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: NAWCAD 4.11.2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                                           |           |                                |           | Manufacturer Location: St. Inigoes, MD       |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime ( <i>in Months</i> ): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                                           |           |                                |           | Production Leadtime ( <i>in Months</i> ): 12 |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                                           |           | <b>FY 2019</b>                 |           |                                              |           | <b>FY 2020</b>                 |           |                                                                         |           | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                                           |           | Dec 2018                       |           |                                              |           | Dec 2019                       |           |                                                                         |           | Dec 2020                       |           |                                |           | Dec 2021                       |           |                                |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | Dec 2017                       |           |                                |           | Dec 2018                       |           |                                                           |           | Dec 2019                       |           |                                              |           | Dec 2020                       |           |                                                                         |           | Dec 2021                       |           |                                |           | Dec 2022                       |           |                                |           | Dec 2023       |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                              |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> ALT:: Installation Name: Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                              |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>                                       |           | <b>FY 2019 OCO</b>             |           | <b>FY 2019 Total</b>                         |           | <b>FY 2020</b>                 |           | <b>FY 2021</b>                                                          |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                 |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | 8 / 0.388                      |           | 3 / 0.091                      |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | 2 / 0.106                      |           | 1 / 0.050                      |           | 14 / 0.635                     |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | 4 / 0.225                      |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | 0 / 0.000                      |           | 4 / 0.225                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | 4 / 0.226                                                 |           | 0 / 0.000                      |           | 4 / 0.226                                    |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | 0 / 0.000                      |           | 4 / 0.226                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | 8 / 0.584                      |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | 0 / 0.000                      |           | 8 / 0.584                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | 8 / 0.649                                                               |           | - / -                          |           | - / -                          |           | 0 / 0.000                      |           | 8 / 0.649                      |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | - / -                                                                   |           | 18 / 1.436                     |           | - / -                          |           | 0 / 0.000                      |           | 18 / 1.436                     |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | 16 / 1.385                     |           | 0 / 0.000                      |           | 16 / 1.385                     |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | 25 / 1.750                     |           | 25 / 1.750                     |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                                        |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | 26 / 3.238                     |           | 26 / 3.238                     |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | 8 / 0.388                      |           | 3 / 0.091                      |           | 4 / 0.225                      |           | 4 / 0.226                                                 |           | 0 / 0.000                      |           | 4 / 0.226                                    |           | 8 / 0.584                      |           | 8 / 0.649                                                               |           | 18 / 1.436                     |           | 18 / 1.491                     |           | 52 / 5.038                     |           | 123 / 10.128                   |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                              |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                                           |           | <b>FY 2019</b>                 |           |                                              |           | <b>FY 2020</b>                 |           |                                                                         |           | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                 | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                    | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                               | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 8          | -                              | 1         | 1                              | 1         | 1                              | 1         | 1                                                         | 1         | 1                              | 1         | 1                                            | 1         | 2                              | 2         | 2                                                                       | 2         | 2                              | 2         | 2                              | 2         | 5                              | 5         | 5                              | 3         | 6              | 4         | 4         | 4         | 52        | 123        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8          | -                              | 1         | 1                              | 1         | 1                              | 1         | 1                                                         | 1         | 1                              | 1         | 1                                            | 1         | 2                              | 2         | 2                                                                       | 2         | 2                              | 2         | 2                              | 2         | 5                              | 5         | 5                              | 3         | 6              | 4         | 4         | 4         | 52        | 123        |
| <b>Footnotes:</b><br><sup>(3)</sup> Increase procurements and installs based on shift in ship availabilities and to meet PEO IWS and Aegis Modernization schedules. Current Inventory Objective is 123. FY18 and out install costs have increased as several of the installs are no longer Mode 5 concurrent. This is due to earlier than anticipated Mode 5 fielding. At the time of those Mode 5 installs, Mode S kits were not yet available.<br><sup>(4)</sup> Production Engineering fluctuates throughout the FYDP as the program transitions from less complex installs on small number of ship classes with limited combat system configurations some years to installs on multiple ship classes with various additional combat system configurations other years. |            |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                              |           |                                |           |                                                                         |           |                                |           |                                |           |                                |           |                                |           |                |           |           |           |           |            |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                            |                                                           | <b>Date:</b> February 2018                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                       | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>2 / AN/UPX 24 (V) Mode S (MT035) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                               |                                                           | <b>MDAP/MAIS Code:</b>                                                  |
| <p><sup>(5)</sup> PI for the FYDP is in support of fleet modernization engineering change proposal (ECP) that supports the improvements in space, weight and power (SWAP), network hardening, and cyber security.</p> |                                                           |                                                                         |

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|---------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                         |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>3 / Mark XII Mode 5 (MT037) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             |               | MDAP/MAIS Code: |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|-----------------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 150.279     | 12.884  | 10.554  | 8.173        | 0.000       | 8.173         | 2.682           | 0.594   | 0.890   | 0.618   | 2.808       | 189.482 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 150.279     | 12.884  | 10.554  | 8.173        | 0.000       | 8.173         | 2.682           | 0.594   | 0.890   | 0.618   | 2.808       | 189.482 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                            | 150.279     | 12.884  | 10.554  | 8.173        | 0.000       | 8.173         | 2.682           | 0.594   | 0.890   | 0.618   | 2.808       | 189.482 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |                 |         |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -       |

**Description:**

Mark XIIA Mode 5 provides improved secure cooperative combat identification throughout Identification Friend or Foe (IFF). Mode 5 is a product improvement which is designed to be installed via engineering changes to digital MarkXII interrogators and transponders including, AN/APX-118/123(V) Common Digital Transponder (CXP), AN/UPX-37/41/45 Digital Interrogator (DI), and AN/UPX-24(V). Procurements will include Cryptography, Long Lead Items, Low-Rate Initial Production (LRIP) Units, Full Rate Production units, Support/Test Equipment, and associated hardware and software changes for Fleet Modernization Plan (FMP) and non-FMP installations. Mode 5 is designed to be installed in all Navy ships which are currently Mode 4 IFF capable. Milestone C and LRIP was approved in July 2006 and Full Rate Production was approved in July 2012. In March 2007, Joint Requirements Oversight Council Memorandum (JROCM 047-07) endorsed a Mode 5 Joint Full Operational Capability in FY2020.

Procurement and installs differ by 108 units due to Naval Special Warfare Forces, which will be installing their own units.



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| Exhibit P-3a, Individual Modification: PB 2019 Navy                          |                                |                                |                                           |                                                    |                                |                                |                                | Date: February 2018                                         |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9     |                                |                                |                                           | P-1 Line Item Number / Title:<br>2851 / ID Systems |                                |                                |                                | Modification Number / Title:<br>3 / Mark XII Mode 5 (MT037) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                             |                                |                                |                                           |                                                    |                                |                                | MDAP/MAIS Code:                |                                                             |                                |                                |                                |                                |  |
| Models of Systems Affected: AN/APX-118/123(V), AN/UPX-37/41(C), AN/UPX-24(V) |                                |                                | Modification Type: Capability Improvement |                                                    |                                |                                |                                | Related RDT&E PEs: 0604777N                                 |                                |                                |                                |                                |  |
| Financial Plan                                                               | Prior Years                    | FY 2017                        | FY 2018                                   | FY 2019 Base                                       | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                     | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)            | Qty (Each) / Total Cost (\$ M)                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                  |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Mark XII Mode 5 (MT037)                            |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| B Kits                                                                       |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| Non-Recurring                                                                |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| 1.1.1) Equipment - Organic                                                   | - / 3.775                      | - / -                          | - / -                                     | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / 3.775                      |  |
| 1.1.2) Mode 5 CXP Systems/Kits - NonOrganic <sup>(6)</sup>                   | 339 / 14.320                   | 41 / 0.059                     | 47 / 0.311                                | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | 427 / 14.690                   |  |
| 1.1.3) Mode 5 UPX-24(V) Kits - NonOrganic                                    | 80 / 7.003                     | 30 / 0.967                     | - / -                                     | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | 110 / 7.970                    |  |
| 1.1.4) Mode 5 DI Systems/ Kits - NonOrganic <sup>(7)</sup>                   | 293 / 11.970                   | - / -                          | - / -                                     | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | 293 / 11.970                   |  |
| Subtotal: Non-Recurring                                                      | - / 37.068                     | - / 1.026                      | - / 0.311                                 | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / 0.000                      | - / 38.405                     |  |
| Subtotal: Mark XII Mode 5 (MT037)                                            | 712 / 37.068                   | 71 / 1.026                     | 47 / 0.311                                | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | 830 / 38.405                   |  |
| Subtotal: Procurement, All Modification Items                                | - / 37.068                     | - / 1.026                      | - / 0.311                                 | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / 0.000                      | - / 38.405                     |  |
| Support (All Modification Items)                                             |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| 2.1) Support Equipment                                                       | - / 9.559                      | - / -                          | - / -                                     | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / 9.559                      |  |
| 2.2) ILS <sup>(8)</sup>                                                      | - / 7.195                      | - / 0.354                      | - / 0.413                                 | - / 0.350                                          | - / -                          | - / 0.350                      | - / 0.160                      | - / 0.058                                                   | - / 0.070                      | - / 0.061                      | - / 0.259                      | - / 8.920                      |  |
| 2.3) PE <sup>(9)</sup>                                                       | - / 46.462                     | - / 4.330                      | - / 4.115                                 | - / 4.304                                          | - / -                          | - / 4.304                      | - / 1.618                      | - / 0.536                                                   | - / 0.604                      | - / 0.557                      | - / 2.315                      | - / 64.841                     |  |
| 2.4) Product Improvement                                                     | - / 12.712                     | - / 0.652                      | - / -                                     | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / 13.364                     |  |
| 2.5) Acceptance, Test & Evaluation <sup>(10)</sup>                           | - / 5.856                      | - / 0.322                      | - / 0.252                                 | - / 0.385                                          | - / -                          | - / 0.385                      | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / 6.815                      |  |
| 2.6) Initial Training                                                        | - / 0.517                      | - / -                          | - / -                                     | - / -                                              | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / 0.517                      |  |
| Subtotal: Support                                                            | - / 82.301                     | - / 5.658                      | - / 4.780                                 | - / 5.039                                          | - / -                          | - / 5.039                      | - / 1.778                      | - / 0.594                                                   | - / 0.674                      | - / 0.618                      | - / 2.574                      | - / 104.016                    |  |
| Installation                                                                 |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Mark XII Mode 5 (MT037)                            | - / 30.910                     | - / 6.200                      | - / 5.463                                 | - / 3.134                                          | - / 0.000                      | - / 3.134                      | - / 0.904                      | - / 0.000                                                   | - / 0.216                      | - / 0.000                      | - / 0.234                      | - / 47.061                     |  |
| Subtotal: Installation                                                       | - / 30.910                     | - / 6.200                      | - / 5.463                                 | - / 3.134                                          | - / -                          | - / 3.134                      | - / 0.904                      | - / -                                                       | - / 0.216                      | - / -                          | - / 0.234                      | - / 47.061                     |  |
| Total                                                                        |                                |                                |                                           |                                                    |                                |                                |                                |                                                             |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                            | 150.279                        | 12.884                         | 10.554                                    | 8.173                                              | 0.000                          | 8.173                          | 2.682                          | 0.594                                                       | 0.890                          | 0.618                          | 2.808                          | 189.482                        |  |

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|------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------|-----------|-----------|----------------|-----------|--------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                     |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           | <b>Date:</b> February 2018     |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                |                                |                                             |           |           |                |           | <b>Modification Number / Title:</b><br>3 / Mark XII Mode 5 (MT037) |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                        |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                      |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Mark XII Mode 5 (MT037)                                       |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: BAE Systems LP <sup>(11)</sup>                                              |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                | Manufacturer Location: Greenlawn, NY        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                | Production Leadtime <i>(in Months)</i> : 24 |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                   |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                            |                                |                                |                                | <b>FY 2020</b>                 |                                             |           |           | <b>FY 2021</b> |           |                                                                    |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                 |            | Dec 2016                       |                                |                                |                                | Dec 2017                       |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                 |            | Dec 2018                       |                                |                                |                                | Dec 2019                       |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Mode 5 CXP Systems/Kits |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                       |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                            | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)              |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                    |            | 230 / 9.857                    | 1 / 0.060                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | 0 / 0.000                      | 231 / 9.917                    |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                        |            | - / -                          | 40 / 2.316                     | 1 / 0.050                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | 0 / 0.000                      | 41 / 2.366                     |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                        |            | - / -                          | - / -                          | 25 / 1.187                     | 16 / 1.320                     | 0 / 0.000                      | 16 / 1.320                     | 4 / 0.093                      | - / -                          | 1 / 0.206                                                 | - / -                          | 1 / 0.100                      | 47 / 2.906                     |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                        |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                    |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                          |            | 230 / 9.857                    | 41 / 2.376                     | 26 / 1.237                     | 16 / 1.320                     | 0 / 0.000                      | 16 / 1.320                     | 4 / 0.093                      | - / -                          | 1 / 0.206                                                 | - / -                          | 1 / 0.100                      | 319 / 15.189                   |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                   |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                            |                                |                                |                                | <b>FY 2020</b>                 |                                             |           |           | <b>FY 2021</b> |           |                                                                    |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                 | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                                   | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                          | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                             | 230        | 10                             | 10                             | 10                             | 11                             | 7                              | 6                              | 6                              | 7                              | 4                                                         | 4                              | 4                              | 4                              | 1                              | 1                                           | 1         | 1         | -              | -         | -                                                                  | -         | 1              | -         | -         | -         | -              | -         | -         | -         | 1         | 319        |
| Out                                                                                            | 230        | 10                             | 10                             | 10                             | 11                             | 7                              | 6                              | 6                              | 7                              | 4                                                         | 4                              | 4                              | 4                              | 1                              | 1                                           | 1         | 1         | -              | -         | -                                                                  | -         | 1              | -         | -         | -         | -              | -         | -         | -         | 1         | 319        |
|                                                                                                |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Mode 5 UPX-24(V) Kits   |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                       |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                            | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)              |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                    |            | 80 / 4.818                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | 0 / 0.000                      | 80 / 4.818                     |                                |                                             |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |

## UNCLASSIFIED

|                                                                                                |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|------------------------------------------------------------------------------------------------|--------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------|------------------------|-----------|-----------|----------------|-----------|--------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                     |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                       |                                       |                                       |                |                        |           |           |                |           | <b>Modification Number / Title:</b><br>3 / Mark XII Mode 5 (MT037) |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                        |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Mark XII Mode 5 (MT037)                                       |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Mode 5 UPX-24(V) Kits   |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                       |              | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                            | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |              | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                        | - / -        | 13 / 1.170                            | 13 / 1.183                            | 3 / 1.025                             | 0 / 0.000                             | 3 / 1.025                             | 1 / 0.100                             | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | 0 / 0.000                             | 30 / 3.478                            |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                    | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                          | 80 / 4.818   | 13 / 1.170                            | 13 / 1.183                            | 3 / 1.025                             | 0 / 0.000                             | 3 / 1.025                             | 1 / 0.100                             | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | 0 / 0.000                             | 110 / 8.296                           |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                   |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                | <b>PYS</b>   | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                            |                                       |                                       |                                       | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                    |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                |              | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                 | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                          | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                             | 80           | 4                                     | 3                                     | 3                                     | 3                                     | 4                                     | 3                                     | 3                                     | 3                                     | 3                                                         | -                                     | -                                     | -                                     | 1              | -                      | -         | -         | -              | -         | -                                                                  | -         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 110        |
| Out                                                                                            | 80           | 4                                     | 3                                     | 3                                     | 3                                     | 4                                     | 3                                     | 3                                     | 3                                     | 3                                                         | -                                     | -                                     | -                                     | 1              | -                      | -         | -         | -              | -         | -                                                                  | -         | -              | -         | -         | -         | -              | -         | -         | -         | -         | 110        |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Mode 5 DI Systems/ Kits |              |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                       |              | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                            | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                |              | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                    | 187 / 16.235 | 33 / 2.654                            | 45 / 3.043                            | 16 / 0.789                            | 0 / 0.000                             | 16 / 0.789                            | 8 / 0.711                             | - / -                                 | 2 / 0.010                             | - / -                                                     | 2 / 0.134                             | 293 / 23.576                          |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                        | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                    | - / -        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                          | 187 / 16.235 | 33 / 2.654                            | 45 / 3.043                            | 16 / 0.789                            | 0 / 0.000                             | 16 / 0.789                            | 8 / 0.711                             | - / -                                 | 2 / 0.010                             | - / -                                                     | 2 / 0.134                             | 293 / 23.576                          |                                       |                |                        |           |           |                |           |                                                                    |           |                |           |           |           |                |           |           |           |           |            |

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|-----------------------------------------------------------------------------------------|-----|---------|----|----|----|---------|----|----|----|----------------------------------------------------|----|----|----|---------|----|----|----|-----------------|----|-------------------------------------------------------------|----|---------------------|----|----|----|---------|----|----|----|----|-----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                     |     |         |    |    |    |         |    |    |    |                                                    |    |    |    |         |    |    |    |                 |    |                                                             |    | Date: February 2018 |    |    |    |         |    |    |    |    |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                |     |         |    |    |    |         |    |    |    | P-1 Line Item Number / Title:<br>2851 / ID Systems |    |    |    |         |    |    |    |                 |    | Modification Number / Title:<br>3 / Mark XII Mode 5 (MT037) |    |                     |    |    |    |         |    |    |    |    |     |
| ID Code (A=Service Ready, B=Not Service Ready) :                                        |     |         |    |    |    |         |    |    |    |                                                    |    |    |    |         |    |    |    | MDAP/MAIS Code: |    |                                                             |    |                     |    |    |    |         |    |    |    |    |     |
| Modification Item 1 of 1: Mark XII Mode 5 (MT037)                                       |     |         |    |    |    |         |    |    |    |                                                    |    |    |    |         |    |    |    |                 |    |                                                             |    |                     |    |    |    |         |    |    |    |    |     |
| Installation Information                                                                |     |         |    |    |    |         |    |    |    |                                                    |    |    |    |         |    |    |    |                 |    |                                                             |    |                     |    |    |    |         |    |    |    |    |     |
| Method of Implementation: [none specified]:: Installation Name: Mode 5 DI Systems/ Kits |     |         |    |    |    |         |    |    |    |                                                    |    |    |    |         |    |    |    |                 |    |                                                             |    |                     |    |    |    |         |    |    |    |    |     |
| Installation Schedule                                                                   |     |         |    |    |    |         |    |    |    |                                                    |    |    |    |         |    |    |    |                 |    |                                                             |    |                     |    |    |    |         |    |    |    |    |     |
|                                                                                         | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019                                            |    |    |    | FY 2020 |    |    |    | FY 2021         |    |                                                             |    | FY 2022             |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                         |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1                                                 | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1              | Q2 | Q3                                                          | Q4 | Q1                  | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                      | 187 | 9       | 8  | 8  | 8  | 12      | 11 | 11 | 11 | 4                                                  | 4  | 4  | 4  | 2       | 2  | 2  | 2  | -               | -  | -                                                           | -  | 2                   | -  | -  | -  | -       | -  | -  | -  | 2  | 293 |
| Out                                                                                     | 187 | 9       | 8  | 8  | 8  | 12      | 11 | 11 | 11 | 4                                                  | 4  | 4  | 4  | 2       | 2  | 2  | 2  | -               | -  | -                                                           | -  | 2                   | -  | -  | -  | -       | -  | -  | -  | 2  | 293 |

## Footnotes:

(6) Procurement of Mode 5 has been prioritized to meet the mandate to field the system prior to FY2020. Hardware unit costs include ancillary equipment throughout the FYDP. The number of kits and necessary ancillary hardware required is dependent upon the class of ship; therefore unit costs fluctuate from year to year based on the number of installs planned for the following year(s). Delta between procurements and installations is due to the (procurement only) Naval Special Warfare units. The Support Equipment (SE) line consists of buying USM-719 (Test Sets) and KIV-78 (crypto appliques). Deliveries occur on a sliding basis, beginning 12 months after contract award and completing 24 months. Install of equipment can not occur until receipt of all 3 pieces of equipment have been delivered from manufacturer. Install costs vary from year to year due to ship availability, ship classification and location of the install. Hardware requirements vary based ship classifications. Inventory Objectives are as follows: Mode 5 Common Digital Transponder (CXP) kits is 427, Mode 5 UPX-24(V) Kits is 110, and Mode 5 Digital Interrogator (DI)Kits is 293. Reschedule of ship procurement and installations to meet fleet request for earliest fielding of Mode 5 capability.

(7) Reschedule of ship procurement and installations to meet fleet request for earliest fielding of Mode 5 capability.

(8) This cost element is impacted by the amount of documentation and logistics work needed because of the differences between ship classes.

(9) Fluctuation in Production Engineering (PE) is due to the reschedule of ship procurement and installations to meet fleet request for earliest fielding of Mode 5 capability.

(10) Acceptance Test & Evaluation (AT&E) costs fluctuate between fiscal years because they are not solely determined by number of procurements. This cost element is impacted by the amount of documentation and logistics work needed because of the differences of complexity between ship classes.

(11) Production lead time ranges from 12 -24 months. Deliveries from the Original Equipment Manufacturer (OEM) commence 12 months after contract award and conclude 24 months after award (i.e. the delivery date on the P-3a is the date of the first delivery, not the date when all items are delivered); installations then occur within the allotted 12 months from when each kit is delivered. Once delivered, additional efforts are required by the In-Service Engineering Activity to produce ready for issue units from kits, and build and test complete systems with ancillary hardware prior to fleet installs.

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|---------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>4 / TACAN System Upgrade (MT038) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 26.176      | 1.127   | 0.000   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 27.303 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 26.176      | 1.127   | 0.000   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 27.303 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 26.176      | 1.127   | 0.000   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 27.303 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Ship Tactical Air Navigation (TACAN) system upgrade. Upgrades will include digital/COTS upgrade to 1970's technology TACAN beacon and reduce parts obsolescence. Inventory Objective of 206 is derived from the Naval Data Environment (NDE) database, the Ships & Aircraft Supplemental Data Table (SASDT), ship/submarine Ship Program Manager (SPM) procurement plans and schedules and JPALS projected FOC.

Funding for procurements, support costs and associated installations for FY 2018 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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|---------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------------|-------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        | <b>Date:</b> February 2018                                              |                                   |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                   |                                   |                                   |                                        | <b>Modification Number / Title:</b><br>4 / TACAN System Upgrade (MT038) |                                   |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                           |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Models of Systems Affected:</b> AN/URN-25                                    |                                   |                                   |                                   | <b>Modification Type:</b> Reliability                     |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0604777N |                                                                         |                                   |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                                                          | <b>FY 2023</b>                    | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                         | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M)                                       | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> TACAN System Upgrade (MT038)                   |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| Non-Recurring                                                                   |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| 1.1.1) Equipment - NonOrganic <sup>(12)</sup>                                   | 77 / 15.232                       | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | 77 / 15.232                       |  |
| <i>Subtotal: Non-Recurring</i>                                                  | - / 15.232                        | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / 0.000                         | - / 15.232                        |  |
| <i>Subtotal: TACAN System Upgrade (MT038)</i>                                   | 77 / 15.232                       | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | 77 / 15.232                       |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 15.232                        | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / 0.000                         | - / 15.232                        |  |
| <b>Support (All Modification Items)</b>                                         |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| 2.1) ILS                                                                        | - / 0.926                         | - / 0.032                         | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | - / 0.958                         |  |
| 2.2) PE                                                                         | - / 6.951                         | - / 0.321                         | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | - / 7.272                         |  |
| 2.3) Acceptance, Test & Evaluation                                              | - / 0.100                         | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / -                             | - / 0.100                         |  |
| <i>Subtotal: Support</i>                                                        | - / 7.977                         | - / 0.353                         | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / 0.000                         | - / 8.330                         |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> TACAN System Upgrade (MT038)                   | - / 2.967                         | - / 0.774                         | - / 0.000                         | - / 0.000                                                 | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                              | - / 0.000                                                               | - / 0.000                         | - / 0.000                         | - / 3.741                         |  |
| <i>Subtotal: Installation</i>                                                   | - / 2.967                         | - / 0.774                         | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                                                                   | - / -                             | - / 0.000                         | - / 3.741                         |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                        |                                                                         |                                   |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>26.176</b>                     | <b>1.127</b>                      | <b>0.000</b>                      | <b>0.000</b>                                              | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                           | <b>0.000</b>                                                            | <b>0.000</b>                      | <b>0.000</b>                      | <b>27.303</b>                     |  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |           |                                |           |                                |                                             |                                |           |                                |           | <b>Modification Number / Title:</b><br>4 / TACAN System Upgrade (MT038) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                      |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> TACAN System Upgrade (MT038)                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Moog, Inc                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                | Manufacturer Location: Salt Lake City, Utah |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                | Production Leadtime (in Months): 12         |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                               |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                            |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                             |            | Nov 2016                       |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                             |            | Nov 2017                       |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> ALT:: Installation Name: Equipment                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                        |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                             | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                          |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                             | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                |            | 49 / 2.967                     |           | 14 / 0.774                     |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | 0 / 0.000                      |           | 63 / 3.741     |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                      |            | 49 / 2.967                     |           | 14 / 0.774                     |           | - / -                          |           | - / -                          |           | - / -                                                     |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | 0 / 0.000                      |           | 63 / 3.741     |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                            | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                            |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                            |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                 | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                   | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                               | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                         | 49         | 3                              | 3         | 4                              | 4         | -                              | -         | -                              | -         | -                                                         | -         | -                              | -         | -                              | -                                           | -                              | -         | -                              | -         | -                                                                       | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 63         |
| Out                                                                                                                                                                                                                                                        | 49         | 3                              | 3         | 4                              | 4         | -                              | -         | -                              | -         | -                                                         | -         | -                              | -         | -                              | -                                           | -                              | -         | -                              | -         | -                                                                       | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 63         |
| <b>Footnotes:</b><br><sup>(12)</sup> TACAN kit funding in FY2017 was reprioritized to pay for Mode 5 installs in order to meet the mandate to field that system by FY2020. No installations shown in FY18 due to TACAN moving out of BLI 2851 to BLI 2820. |            |                                |           |                                |           |                                |           |                                |           |                                                           |           |                                |           |                                |                                             |                                |           |                                |           |                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                                     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>5 / Mode S Digital Interrogator (MT040) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 32.443      | 1.898   | 3.442   | 5.345        | 0.000       | 5.345           | 5.349   | 5.938   | 7.618   | 6.493   | 23.204      | 91.730 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 32.443      | 1.898   | 3.442   | 5.345        | 0.000       | 5.345           | 5.349   | 5.938   | 7.618   | 6.493   | 23.204      | 91.730 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 32.443      | 1.898   | 3.442   | 5.345        | 0.000       | 5.345           | 5.349   | 5.938   | 7.618   | 6.493   | 23.204      | 91.730 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Adds Mode Select (S) Beacon System commercial aircraft interrogation capability to shipboard IFF Digital Interrogators (DIs). Incorporation of a Mode S capability in the AN/UPX-41(C) will result in a nomenclature change to AN/UPX-45(C). In some installations, such as Aircraft Carriers, incorporation of the Mode S capability in the DI will include an interface with a ship's Air Traffic Control System. Mode S provides improved aircraft surveillance and communications necessary to support air traffic control automation in the dense traffic environments. Mode S provides more accurate aircraft positional information and minimizes interference by discrete interrogation of each Mode S transponder-equipped aircraft and improved processing of aircraft replies. In addition, Mode S provides the medium for a digital data link, which can be used to exchange information between aircraft and various air traffic control functions and weather databases. Inventory Objective of 321 is derived from the Naval Data Environment database, the Ships & Aircraft Supplemental Data Table and ship/submarine Ship Program Manager procurement plans and schedules.



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   | <b>Date:</b> February 2018                                                     |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                   |                                   |                                   |                                                  | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                   |                                   |                                        |                                   | <b>Modification Number / Title:</b><br>5 / Mode S Digital Interrogator (MT040) |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                  |                                                           |                                   | <b>MDAP/MAIS Code:</b>            |                                        |                                   |                                                                                |                                   |                                   |  |
| <b>Models of Systems Affected:</b> AN/UPX-37/<br>ANUPX-41(V)                    |                                   |                                   |                                   | <b>Modification Type:</b> Capability Improvement |                                                           |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0604777N |                                   |                                                                                |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019<br/>Base</b>                          | <b>FY 2019<br/>OCO</b>                                    | <b>FY 2019<br/>Total</b>          | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                 | <b>To<br/>Complete</b>            | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                | Qty (Each) /<br>Total Cost (\$ M)                         | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                              | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> Mode S Digital Interrogator (MT040)            |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| Non-Recurring                                                                   |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| 1.1.1) Equipment - NonOrganic <sup>(13)</sup>                                   | 22 / 0.152                        | - / -                             | 8 / 0.091                         | 28 / 0.325                                       | - / -                                                     | 28 / 0.325                        | 26 / 0.308                        | 53 / 0.640                             | 40 / 0.493                        | 62 / 0.773                                                                     | 82 / 1.074                        | 321 / 3.856                       |  |
| <b>Subtotal: Non-Recurring</b>                                                  | - / 0.152                         | - / -                             | - / 0.091                         | - / 0.325                                        | - / -                                                     | - / 0.325                         | - / 0.308                         | - / 0.640                              | - / 0.493                         | - / 0.773                                                                      | - / 1.074                         | - / 3.856                         |  |
| <b>Subtotal: Mode S Digital Interrogator (MT040)</b>                            | 22 / 0.152                        | - / -                             | 8 / 0.091                         | 28 / 0.325                                       | - / -                                                     | 28 / 0.325                        | 26 / 0.308                        | 53 / 0.640                             | 40 / 0.493                        | 62 / 0.773                                                                     | 82 / 1.074                        | 321 / 3.856                       |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 0.152                         | - / -                             | - / 0.091                         | - / 0.325                                        | - / -                                                     | - / 0.325                         | - / 0.308                         | - / 0.640                              | - / 0.493                         | - / 0.773                                                                      | - / 1.074                         | - / 3.856                         |  |
| <b>Support (All Modification Items)</b>                                         |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| 2.1) Support Equipment                                                          | - / 0.688                         | - / -                             | - / -                             | - / -                                            | - / -                                                     | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                                          | - / -                             | - / 0.688                         |  |
| 2.2) ILS                                                                        | - / 2.104                         | - / 0.360                         | - / 0.471                         | - / 0.410                                        | - / -                                                     | - / 0.410                         | - / 0.569                         | - / 0.703                              | - / 0.707                         | - / 0.762                                                                      | - / 3.190                         | - / 9.276                         |  |
| 2.3) PE <sup>(14)</sup>                                                         | - / 17.534                        | - / 1.538                         | - / 2.569                         | - / 4.084                                        | - / -                                                     | - / 4.084                         | - / 3.556                         | - / 3.536                              | - / 4.359                         | - / 2.787                                                                      | - / 11.871                        | - / 51.834                        |  |
| 2.4) Product Improvement                                                        | - / 9.007                         | - / -                             | - / -                             | - / -                                            | - / -                                                     | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                                          | - / -                             | - / 9.007                         |  |
| 2.5) Acceptance, Test & Evaluation                                              | - / 1.995                         | - / -                             | - / 0.086                         | - / 0.300                                        | - / -                                                     | - / 0.300                         | - / 0.252                         | - / 0.238                              | - / 0.458                         | - / 0.416                                                                      | - / 1.429                         | - / 5.174                         |  |
| 2.6) Depot                                                                      | - / 0.200                         | - / -                             | - / -                             | - / -                                            | - / -                                                     | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                                          | - / -                             | - / 0.200                         |  |
| 2.7) Initial Training                                                           | - / 0.423                         | - / -                             | - / -                             | - / -                                            | - / -                                                     | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                                          | - / -                             | - / 0.423                         |  |
| <b>Subtotal: Support</b>                                                        | - / 31.951                        | - / 1.898                         | - / 3.126                         | - / 4.794                                        | - / -                                                     | - / 4.794                         | - / 4.377                         | - / 4.477                              | - / 5.524                         | - / 3.965                                                                      | - / 16.490                        | - / 76.602                        |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> Mode S Digital Interrogator (MT040)            | - / 0.340                         | - / 0.000                         | - / 0.225                         | - / 0.226                                        | - / 0.000                                                 | - / 0.226                         | - / 0.664                         | - / 0.821                              | - / 1.601                         | - / 1.755                                                                      | - / 5.640                         | - / 11.272                        |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.340                         | - / -                             | - / 0.225                         | - / 0.226                                        | - / -                                                     | - / 0.226                         | - / 0.664                         | - / 0.821                              | - / 1.601                         | - / 1.755                                                                      | - / 5.640                         | - / 11.272                        |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                  |                                                           |                                   |                                   |                                        |                                   |                                                                                |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | 32.443                            | 1.898                             | 3.442                             | 5.345                                            | 0.000                                                     | 5.345                             | 5.349                             | 5.938                                  | 7.618                             | 6.493                                                                          | 23.204                            | 91.730                            |  |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                |                                |                                |                                                           |                                |                                |                                |                                | <b>Date:</b> February 2018                                                     |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                       |                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>5 / Mode S Digital Interrogator (MT040) |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                |                                |                                |                                                           |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                                         |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Mode S Digital Interrogator (MT040)                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                                                                |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                                                                |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Manufacturer Name: BAE Systems LP                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                |                                |                                |                                                           |                                |                                |                                |                                | Manufacturer Location: Greenlawn, NY                                           |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                |                                |                                |                                                           |                                |                                |                                |                                | Production Leadtime (in Months): 12                                            |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>FY 2017</b> |                                |                                |                                | <b>FY 2018</b>                                            |                                |                                |                                | <b>FY 2019</b>                 |                                                                                |                                |                                | <b>FY 2020</b>                 |                |           |           | <b>FY 2021</b> |                |           |           | <b>FY 2022</b> |                |           |           | <b>FY 2023</b> |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dec 2016       |                                |                                |                                | Dec 2017                                                  |                                |                                |                                | Dec 2018                       |                                                                                |                                |                                | Dec 2019                       |                |           |           | Dec 2020       |                |           |           | Dec 2021       |                |           |           | Dec 2022       |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dec 2017       |                                |                                |                                | Dec 2018                                                  |                                |                                |                                | Dec 2019                       |                                                                                |                                |                                | Dec 2020                       |                |           |           | Dec 2021       |                |           |           | Dec 2022       |                |           |           | Dec 2023       |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                                                                |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Method of Implementation:</b> ALT:: Installation Name: Equipment                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                                                                |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                                                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | 14 / 0.340                     | - / -                          | 8 / 0.225                      | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | - / -                          | 0 / 0.000                      | 22 / 0.565                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | - / -                          | - / -                          | - / -                          |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | 8 / 0.226                                                 | 0 / 0.000                      | 8 / 0.226                      | - / -                          | - / -                          | - / -                                                                          | - / -                          | 0 / 0.000                      | 8 / 0.226                      |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | 28 / 0.664                     | - / -                          | - / -                                                                          | - / -                          | 0 / 0.000                      | 28 / 0.664                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | 26 / 0.821                     | - / -                                                                          | - / -                          | 0 / 0.000                      | 26 / 0.821                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | 49 / 1.601                                                                     | - / -                          | 4 / 0.000                      | 53 / 1.601                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | 40 / 1.755                     | 0 / 0.000                      | 40 / 1.755                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | - / -                          | 62 / 2.418                     | 62 / 2.418                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                          | - / -                          | 82 / 3.222                     | 82 / 3.222                     |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | 14 / 0.340                     | - / -                          | 8 / 0.225                      | 8 / 0.226                                                 | 0 / 0.000                      | 8 / 0.226                      | 28 / 0.664                     | 26 / 0.821                     | 49 / 1.601                                                                     | 40 / 1.755                     | 148 / 5.640                    | 321 / 11.272                   |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                                                                |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>PYS</b>     | <b>FY 2017</b>                 |                                |                                |                                                           | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                                 |                                |                                |                                | <b>FY 2020</b> |           |           |                | <b>FY 2021</b> |           |           |                | <b>FY 2022</b> |           |           |                | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                 | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 14             | -                              | -                              | -                              | -                                                         | 2                              | 2                              | 2                              | 2                              | 2                                                                              | 2                              | 2                              | 2                              | 7              | 7         | 7         | 7              | 7              | 7         | 6         | 6              | 13             | 12        | 12        | 12             | 10             | 10        | 10        | 10        | 148       | 321        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 14             | -                              | -                              | -                              | -                                                         | 2                              | 2                              | 2                              | 2                              | 2                                                                              | 2                              | 2                              | 2                              | 7              | 7         | 7         | 7              | 7              | 7         | 6         | 6              | 13             | 12        | 12        | 12             | 10             | 10        | 10        | 10        | 148       | 321        |
| <b>Footnotes:</b><br><sup>(13)</sup> Mode S kit funding in FY2017 was reprioritized to pay for Mode 5 installs in order to meet the mandate to field that system by FY2020. Increase procurements and installs based on shift in ship availabilities and to meet PEO IWS and Aegis Modernization schedules. 8 units being installed in FY18 were procured with PY funds in FY17. FY18 and out install cost have increased as several are no longer Mode 5 concurrent. |                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                                                                |                                |                                |                                |                |           |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                        |                                                    | Date: February 2018                                                     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                                                                                                                                                                                                   | P-1 Line Item Number / Title:<br>2851 / ID Systems | Modification Number / Title:<br>5 / Mode S Digital Interrogator (MT040) |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                           |                                                    | MDAP/MAIS Code:                                                         |
| <div>(14) Production Engineering fluctuates throughout the FYDP as the program transitions from installs on small number of ship classes with limited combat system configurations some years to installs on multiple ship classes with various additional combat system configurations other years.</div> |                                                    |                                                                         |

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|---------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------|--|----------------------------|--|-----------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |  |  |  |                                                           |  | <b>Date:</b> February 2018 |  |                                                                       |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |  |                            |  | <b>Modification Number / Title:</b><br>6 / OE-120/UPX Antenna (MT041) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 0.000       | 0.000   | 0.000   | 5.392        | 0.000       | 5.392           | 10.759  | 10.946  | 14.740  | 15.408  | 193.022     | 250.267 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 0.000       | 0.000   | 0.000   | 5.392        | 0.000       | 5.392           | 10.759  | 10.946  | 14.740  | 15.408  | 193.022     | 250.267 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 0.000       | 0.000   | 0.000   | 5.392        | 0.000       | 5.392           | 10.759  | 10.946  | 14.740  | 15.408  | 193.022     | 250.267 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                 | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

The OE-120()/UPX antenna is a new start in FY 2019. The antenna radiates Identification Friend or Foe (IFF) encoded radio frequency (RF) challenge pulses into space and receives the resultant IFF encoded RF transponder replies from space. Current surface ship OE-120()/UPX antenna systems will receive upgrade kits to improve system R&M. The upgrade kits will use open architecture and current technology that allows for continued production and future growth Inventory Objective of 61 is derived from the Naval Data Environment database, the Ships & Aircraft Supplemental Data Table, and procurement plans and schedules. An Engineering Change Proposal has been awarded using RDT&E (PU 0676) funds for the Original Equipment Manufacturer to deliver an Engineering Design Model for shipboard test and evaluation in fiscal year 2018.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                            |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>6 / OE-120/UPX Antenna (MT041) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                                           |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                       |                                |                                |  |
| <b>Models of Systems Affected:</b> OE-120()/UPX Antenna Group                   |                                |                                |                                | <b>Modification Type:</b> Reliability                     |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604777N |                                |                                                                       |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                        | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| <b>Modification Item 1 of 1:</b> OE-120/UPX Antenna (MT041)                     |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| Non-Recurring                                                                   |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| 1.1.1) Equipment - NonOrganic <sup>(15)</sup>                                   | - / -                          | - / -                          | - / -                          | 1 / 2.078                                                 | - / -                          | 1 / 2.078                      | 3 / 6.358                      | 3 / 6.485                              | 4 / 8.820                      | 5 / 11.246                                                            | 45 / 114.573                   | 61 / 149.560                   |  |
| <b>Subtotal: Non-Recurring</b>                                                  | - / 0.000                      | - / -                          | - / -                          | - / 2.078                                                 | - / -                          | - / 2.078                      | - / 6.358                      | - / 6.485                              | - / 8.820                      | - / 11.246                                                            | - / 114.573                    | - / 149.560                    |  |
| <b>Subtotal: OE-120/UPX Antenna (MT041)</b>                                     | - / -                          | - / -                          | - / -                          | 1 / 2.078                                                 | - / -                          | 1 / 2.078                      | 3 / 6.358                      | 3 / 6.485                              | 4 / 8.820                      | 5 / 11.246                                                            | 45 / 114.573                   | 61 / 149.560                   |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 0.000                      | - / -                          | - / -                          | - / 2.078                                                 | - / -                          | - / 2.078                      | - / 6.358                      | - / 6.485                              | - / 8.820                      | - / 11.246                                                            | - / 114.573                    | - / 149.560                    |  |
| <b>Support (All Modification Items)</b>                                         |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| 2.1) ILS                                                                        | - / -                          | - / -                          | - / -                          | - / 0.732                                                 | - / -                          | - / 0.732                      | - / 0.553                      | - / 0.564                              | - / 0.384                      | - / 0.196                                                             | - / 2.959                      | - / 5.388                      |  |
| 2.2) PE                                                                         | - / -                          | - / -                          | - / -                          | - / 1.483                                                 | - / -                          | - / 1.483                      | - / 2.677                      | - / 3.063                              | - / 2.519                      | - / 2.495                                                             | - / 29.959                     | - / 42.196                     |  |
| 2.4) Acceptance, Test & Evaluation <sup>(16)</sup>                              | - / -                          | - / -                          | - / -                          | - / 1.099                                                 | - / -                          | - / 1.099                      | - / 1.171                      | - / 0.553                              | - / 0.630                      | - / 0.439                                                             | - / 9.160                      | - / 13.052                     |  |
| <b>Subtotal: Support</b>                                                        | - / 0.000                      | - / -                          | - / -                          | - / 3.314                                                 | - / -                          | - / 3.314                      | - / 4.401                      | - / 4.180                              | - / 3.533                      | - / 3.130                                                             | - / 42.078                     | - / 60.636                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| <b>Modification Item 1 of 1:</b> OE-120/UPX Antenna (MT041)                     | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                 | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.281                              | - / 0.992                      | - / 1.032                                                             | - / 18.532                     | - / 20.837                     |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.000                      | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / 0.281                              | - / 0.992                      | - / 1.032                                                             | - / 18.532                     | - / 20.837                     |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                |                                                                       |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>5.392</b>                                              | <b>0.000</b>                   | <b>5.392</b>                   | <b>10.759</b>                  | <b>10.946</b>                          | <b>14.740</b>                  | <b>15.408</b>                                                         | <b>193.022</b>                 | <b>250.267</b>                 |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-----------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|---------------------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |           |                                |                |                                             |           |                                |                |                                | <b>Modification Number / Title:</b><br>6 / OE-120/UPX Antenna (MT041) |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                | <b>MDAP/MAIS Code:</b>                      |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> OE-120/UPX Antenna (MT041)                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: TBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                | Manufacturer Location: TBD                  |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                | Production Leadtime <i>(in Months)</i> : 22 |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                            |                                |           |                                | <b>FY 2020</b> |                                             |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Equipment                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                              |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                       | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)              |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                       | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | 1 / 0.281                                   |           | - / -                          |                | - / -                          |                                                                       | 0 / 0.000                      |                | 1 / 0.281                      |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | 3 / 0.992                      |                | - / -                          |                                                                       | 0 / 0.000                      |                | 3 / 0.992                      |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | 3 / 1.032                      |                                                                       | 0 / 0.000                      |                | 3 / 1.032                      |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                                       | 4 / 0.574                      |                | 4 / 0.574                      |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                                       | 5 / 0.720                      |                | 5 / 0.720                      |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | - / -                                       |           | - / -                          |                | - / -                          |                                                                       | 52 / 17.238                    |                | 52 / 17.238                    |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                           | - / -                          |           | - / -                          |                | 1 / 0.281                                   |           | 3 / 0.992                      |                | 3 / 1.032                      |                                                                       | 61 / 18.532                    |                | 68 / 20.837                    |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                            |                                |           |                                | <b>FY 2020</b> |                                             |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                 | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                   | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                             | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                         | -                              | -         | -                              | -              | -                                           | -         | -                              | 1              | -                              | -                                                                     | -                              | 3              | -                              | -         | -         | -              | 3         | -         | -         | 54        | 61         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                         | -                              | -         | -                              | -              | -                                           | -         | -                              | 1              | -                              | -                                                                     | -                              | 3              | -                              | -         | -         | -              | 3         | -         | -         | 54        | 61         |
| <b>Footnotes:</b><br><sup>(15)</sup> Commence Naval Modernization Process planning, Ship Change Document (SCD) development and approval in FY18 required for LPD17, LHD1, LHA6, CVN68, CVN78, DDG51, and CG47 ship classes. In FY19 added one (1) Kit to support the school house training, this will be installed in FY21.<br><sup>(16)</sup> Acceptance, Test & Evaluation funding is required to start testing various ship baselines before actual installations can occur in the out years. |            |                                |                                |           |                                |                |                                |           |                                |                                                           |                                |           |                                |                |                                             |           |                                |                |                                |                                                                       |                                |                |                                |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                           |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                               |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                           |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                          |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                           | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                         | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 0.000          | 0.000          | 0.000                                                     | 0.000              | 0.000                | 0.000                  | 0.000          | 17.983         | 12.380                                                                                   | 53.574             | 83.937        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                         | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                         | 0.000              | 0.000          | 0.000          | 0.000                                                     | 0.000              | 0.000                | 0.000                  | 0.000          | 17.983         | 12.380                                                                                   | 53.574             | 83.937        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                                         | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                             | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                              | <b>0.000</b>       | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>17.983</b>  | <b>12.380</b>                                                                            | <b>53.574</b>      | <b>83.937</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                           |                    |                      |                        |                |                |                                                                                          |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                         | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                         | -                  | -                    | -                      | -              | -              | -                                                                                        | -                  | -             |
| <b>Description:</b><br>Replace or upgrade unique Shipboard IFF Interrogator Systems with common hardware configurations including the CP-2819/UPX processor, AN/APX-123(V) Common Digital Transponder (CXP), and Mark XIIA Digital Interrogator (DI) equipment. Unique interrogator systems will not meet Mode 5 requirements per Mark XIIA Cooperative IFF Operational Requirements Document 595-61-02 - dated 27 Apr 2001. Inventory Objective is 68. |                    |                |                |                                                           |                    |                      |                        |                |                |                                                                                          |                    |               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        | <b>Date:</b> February 2018                                                               |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                |                                |                                                           |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                                          |                                |                                |  |
| <b>Models of Systems Affected:</b> UPX-29/UPX29A/UPX-46 Processor System        |                                |                                |                                |                                | <b>Modification Type:</b> Reliability                     |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604777N |                                                                                          |                                |                                |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                        | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                         | <b>FY 2023</b>                                                                           | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                                                                          |                                |                                |  |
| <b>Modification Item 1 of 1:</b> UPX-29/UPX29A/UPX-46 Processor System (MT042)  |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                                                                          |                                |                                |  |
| B Kits                                                                          |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                                                                          |                                |                                |  |
| Non-Recurring                                                                   |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                                                                          |                                |                                |  |
| 1.1.1) Mode 5 UPX-46 Systems/Kits - NonOrganic <sup>(17)</sup>                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | 4 / 2.760                              | 5 / 2.998                                                                                | 19 / 14.571                    | 28 / 20.329                    |  |
| 1.1.2) Mode 5 CXP Systems/Kits - NonOrganic                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | 2 / 0.113                              | 3 / 0.137                                                                                | 15 / 0.582                     | 20 / 0.832                     |  |
| 1.1.3) Mode 5 DI Systems/Kits - NonOrganic                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | 2 / 0.721                              | 3 / 0.858                                                                                | 15 / 3.795                     | 20 / 5.374                     |  |
| <b>Subtotal: Non-Recurring</b>                                                  | - / 0.000                      | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / 3.594                              | - / 3.993                                                                                | - / 18.948                     | - / 26.535                     |  |
| <b>Subtotal: UPX-29/UPX29A/UPX-46 Processor System (MT042)</b>                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | 8 / 3.594                              | 11 / 3.993                                                                               | 49 / 18.948                    | 68 / 26.535                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                            | - / 0.000                      | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / 3.594                              | - / 3.993                                                                                | - / 18.948                     | - / 26.535                     |  |
| <b>Installation</b>                                                             |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                                                                          |                                |                                |  |
| <b>Modification Item 1 of 1:</b> UPX-29/UPX29A/UPX-46 Processor System (MT042)  | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                 | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                              | - / 0.578                                                                                | - / 7.509                      | - / 8.087                      |  |
| <b>Subtotal: Installation</b>                                                   | - / 0.000                      | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                                  | - / 0.578                                                                                | - / 7.509                      | - / 8.087                      |  |
| <b>Total</b>                                                                    |                                |                                |                                |                                |                                                           |                                |                                |                                |                                        |                                                                                          |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                                              | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>17.983</b>                          | <b>12.380</b>                                                                            | <b>53.574</b>                  | <b>83.937</b>                  |  |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                           |                                |                                |                                |                                                           |                                |                                | <b>Date:</b> February 2018             |                                                                                          |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9      |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                        | <b>Modification Number / Title:</b><br>7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                              |                                |                                |                                |                                                           |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                                                                          |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> UPX-29/UPX29A/UPX-46 Processor System (MT042)       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                      |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| Manufacturer Name: NAWCAD                                                            |                                |                                |                                |                                                           |                                |                                | Manufacturer Location: St. Inigoes, MD |                                                                                          |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                               |                                |                                |                                |                                                           |                                |                                | Production Leadtime (in Months): 24    |                                                                                          |                                |                                |                                |                                |
| <b>Dates</b>                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                            | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                         |                                                                                          |                                |                                |                                |                                |
| Contract Dates                                                                       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| Delivery Dates                                                                       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| Manufacturer Name: BAE Systems LP                                                    |                                |                                |                                |                                                           |                                |                                | Manufacturer Location: Greenlawn, NY   |                                                                                          |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                               |                                |                                |                                |                                                           |                                |                                | Production Leadtime (in Months): 24    |                                                                                          |                                |                                |                                |                                |
| <b>Dates</b>                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                            | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                         |                                                                                          |                                |                                |                                |                                |
| Contract Dates                                                                       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| Delivery Dates                                                                       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| Manufacturer Name: BAE Systems                                                       |                                |                                |                                |                                                           |                                |                                | Manufacturer Location: Greenlawn, NY   |                                                                                          |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                               |                                |                                |                                |                                                           |                                |                                | Production Leadtime (in Months): 24    |                                                                                          |                                |                                |                                |                                |
| <b>Dates</b>                                                                         | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                            | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                         |                                                                                          |                                |                                |                                |                                |
| Contract Dates                                                                       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| Delivery Dates                                                                       |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| <b>Installation Information</b>                                                      |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| <b>Method of Implementation:</b> ALT:: Installation Name: Mode 5 UPX-46 Systems/Kits |                                |                                |                                |                                                           |                                |                                |                                        |                                                                                          |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                             | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                         | <b>FY 2021</b>                                                                           | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | 2 / 0.578                      | 4 / 1.156                      |
| FY 2023                                                                              | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | 5 / 0.750                      | 5 / 0.750                      |
| To Complete                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | 19 / 3.450                     | 19 / 3.450                     |
| Total                                                                                | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                                  | - / -                                                                                    | - / -                          | - / -                          | 2 / 0.578                      | 28 / 5.356                     |

## UNCLASSIFIED

|                                                                                      |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
|--------------------------------------------------------------------------------------|-----|--------------------------------|----|--------------------------------|----|--------------------------------|----|--------------------------------|----|--------------------------------|-----------------------------------------------------------|--------------------------------|----|--------------------------------|----|--------------------------------|------------------------|--------------------------------|----|--------------------------------|----|------------------------------------------------------------------------------------------|----------------------------|--------------------------------|----|------------|----|----|----|----|-----|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                           |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          | <b>Date:</b> February 2018 |                                |    |            |    |    |    |    |     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9      |     |                                |    |                                |    |                                |    |                                |    |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |    |                                |    |                                |                        |                                |    |                                |    | <b>Modification Number / Title:</b><br>7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) |                            |                                |    |            |    |    |    |    |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                              |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                | <b>MDAP/MAIS Code:</b> |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
| <b>Modification Item 1 of 1:</b> UPX-29/UPX29A/UPX-46 Processor System (MT042)       |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
| <b>Installation Information</b>                                                      |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
| <b>Method of Implementation:</b> AIT:: Installation Name: Mode 5 UPX-46 Systems/Kits |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
| <b>Installation Schedule</b>                                                         |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
|                                                                                      | PYS | FY 2017                        |    |                                |    | FY 2018                        |    |                                |    | FY 2019                        |                                                           |                                |    | FY 2020                        |    |                                |                        | FY 2021                        |    |                                |    | FY 2022                                                                                  |                            |                                |    | FY 2023    |    |    |    |    |     |
|                                                                                      |     | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2                                                        | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4                     | Q1                             | Q2 | Q3                             | Q4 | Q1                                                                                       | Q2                         | Q3                             | Q4 | Q1         | Q2 | Q3 | Q4 | TC | Tot |
| In                                                                                   | -   | -                              | -  | -                              | -  | -                              | -  | -                              | -  | -                              | -                                                         | -                              | -  | -                              | -  | -                              | -                      | -                              | -  | -                              | -  | -                                                                                        | -                          | -                              | -  | 2          | -  | -  | -  | 26 | 28  |
| Out                                                                                  | -   | -                              | -  | -                              | -  | -                              | -  | -                              | -  | -                              | -                                                         | -                              | -  | -                              | -  | -                              | -                      | -                              | -  | -                              | -  | -                                                                                        | -                          | -                              | -  | 2          | -  | -  | -  | 26 | 28  |
| <b>Method of Implementation:</b> AIT:: Installation Name: Mode 5 CXP Systems/Kits    |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
| <b>Installation Cost</b>                                                             |     | <b>Prior Years</b>             |    | <b>FY 2017</b>                 |    | <b>FY 2018</b>                 |    | <b>FY 2019 Base</b>            |    | <b>FY 2019 OCO</b>             |                                                           | <b>FY 2019 Total</b>           |    | <b>FY 2020</b>                 |    | <b>FY 2021</b>                 |                        | <b>FY 2022</b>                 |    | <b>FY 2023</b>                 |    | <b>To Complete</b>                                                                       |                            | <b>Total</b>                   |    |            |    |    |    |    |     |
|                                                                                      |     | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |                                                           | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |                        | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M) |    | Qty (Each) / Total Cost (\$ M)                                                           |                            | Qty (Each) / Total Cost (\$ M) |    |            |    |    |    |    |     |
| Prior Years                                                                          |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | - / -                          |    | - / -      |    |    |    |    |     |
| FY 2017                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | - / -                          |    | - / -      |    |    |    |    |     |
| FY 2018                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | - / -                          |    | - / -      |    |    |    |    |     |
| FY 2019                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | - / -                          |    | - / -      |    |    |    |    |     |
| FY 2020                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | - / -                          |    | - / -      |    |    |    |    |     |
| FY 2021                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | - / -                          |    | - / -      |    |    |    |    |     |
| FY 2022                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | 2 / 0.289                      |    | 2 / 0.289  |    |    |    |    |     |
| FY 2023                                                                              |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | 3 / 0.315                      |    | 3 / 0.315  |    |    |    |    |     |
| To Complete                                                                          |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | 15 / 0.870                     |    | 15 / 0.870 |    |    |    |    |     |
| Total                                                                                |     | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |    | - / -                          |                                                           | - / -                          |    | - / -                          |    | - / -                          |                        | - / -                          |    | - / -                          |    | - / -                                                                                    |                            | 20 / 1.474                     |    | 20 / 1.474 |    |    |    |    |     |
| <b>Installation Schedule</b>                                                         |     |                                |    |                                |    |                                |    |                                |    |                                |                                                           |                                |    |                                |    |                                |                        |                                |    |                                |    |                                                                                          |                            |                                |    |            |    |    |    |    |     |
|                                                                                      | PYS | FY 2017                        |    |                                |    | FY 2018                        |    |                                |    | FY 2019                        |                                                           |                                |    | FY 2020                        |    |                                |                        | FY 2021                        |    |                                |    | FY 2022                                                                                  |                            |                                |    | FY 2023    |    |    |    |    |     |
|                                                                                      |     | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4 | Q1                             | Q2                                                        | Q3                             | Q4 | Q1                             | Q2 | Q3                             | Q4                     | Q1                             | Q2 | Q3                             | Q4 | Q1                                                                                       | Q2                         | Q3                             | Q4 | Q1         | Q2 | Q3 | Q4 | TC | Tot |
| In                                                                                   | -   | -                              | -  | -                              | -  | -                              | -  | -                              | -  | -                              | -                                                         | -                              | -  | -                              | -  | -                              | -                      | -                              | -  | -                              | -  | -                                                                                        | -                          | -                              | -  | -          | -  | -  | -  | 20 | 20  |
| Out                                                                                  | -   | -                              | -  | -                              | -  | -                              | -  | -                              | -  | -                              | -                                                         | -                              | -  | -                              | -  | -                              | -                      | -                              | -  | -                              | -  | -                                                                                        | -                          | -                              | -  | -          | -  | -  | -  | 20 | 20  |

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|                                                                                 |                                                           |                                                                                          |
|---------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>7 / UPX-29/UPX29A/UPX-46 Processor System (MT042) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** UPX-29/UPX29A/UPX-46 Processor System (MT042)

**Installation Information**

**Method of Implementation:** AIT:: Installation Name: Mode 5 DI Systems/Kits

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.165                      | 2 / 0.165                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 0.209                      | 3 / 0.209                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 15 / 0.883                     | 15 / 0.883                     |
| Total             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 20 / 1.257                     | 20 / 1.257                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | 20 | 20 |     |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | 20 | 20 |     |

**Footnotes:**

(17) Will provide the Mode 5 Capability to (3) Ship Classes . The UPX-46 system require a 24 month lead time, and a UPX-46 kit requires a 12 month lead time. Install of equipment can not occur until receipt of all 3 pieces of equipment have been delivered from manufacturer. Install costs vary from year to year due to ship availability, ship classification and location of the install. Hardware requirements vary based on ship classifications. Initial spares are included in overall hardware cost.

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                     |                                                           |                      |                        |                |                |                                                                                                          |                    |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|-----------------------------------------------------------|----------------------|------------------------|----------------|----------------|----------------------------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     |                                                           |                      |                        |                |                | <b>Date:</b> February 2018                                                                               |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                      |                        |                |                | <b>Modification Number / Title:</b><br>8 / Radar Track Discriminator System<br>(RTDS) AN/UPX-34A (MT043) |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                     |                                                           |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                          |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                        | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                           | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                        | -                  | -             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.000              | 0.000          | 0.000          | 0.000               | 0.000                                                     | 0.000                | 0.000                  | 0.000          | 0.000          | 3.082                                                                                                    | 15.420             | 18.502        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                        | -                  | -             |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.000              | 0.000          | 0.000          | 0.000               | 0.000                                                     | 0.000                | 0.000                  | 0.000          | 0.000          | 3.082                                                                                                    | 15.420             | 18.502        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                        | -                  | -             |
| <b>Total Obligation Authority</b> <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>        | <b>0.000</b>                                              | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>3.082</b>                                                                                             | <b>15.420</b>      | <b>18.502</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                     |                                                           |                      |                        |                |                |                                                                                                          |                    |               |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                        | -                  | -             |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                   | -                                                         | -                    | -                      | -              | -              | -                                                                                                        | -                  | -             |
| <p><b>Description:</b></p> <p>AN/UPX-34A Radar Track Discriminator System (RTDS) is installed on CG47 Class Aegis Cruisers and provides high fidelity, long range, Non-Cooperative Target Recognition (NCTR) capability to support the Air-Sea battle by providing timely tactical engagement decisions by Aegis action officers. Upgrades to the system will reduce Rules of Engagement (ROE) concerns, incorporate "other services" target libraries into the RTDS database, and increase the system's range performance. These enhancements are critical to the Aegis Cruiser's primary Anti-Air warfare (AAW) role. These enhancements also provide critical capability to accurately identify and discern civilian versus military aircraft. Inventory objective 11.</p> |                    |                |                |                     |                                                           |                      |                        |                |                |                                                                                                          |                    |               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                  |                                |                                |                                |                                                           |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                            |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9             |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>8 / Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                     |                                |                                |                                |                                                           |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                                       |                                |                                |  |
| <b>Models of Systems Affected:</b> Radar Track Discriminator System (RTDS) AN/UPX-34A       |                                |                                |                                | <b>Modification Type:</b> Reliability                     |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                                       |                                |                                |  |
| <b>Financial Plan</b>                                                                       | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                        | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                          |                                |                                |                                |                                                           |                                |                                |                                |                                |                                |                                                                                                       |                                |                                |  |
| <b>Modification Item 1 of 1:</b> Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043) |                                |                                |                                |                                                           |                                |                                |                                |                                |                                |                                                                                                       |                                |                                |  |
| B Kits                                                                                      |                                |                                |                                |                                                           |                                |                                |                                |                                |                                |                                                                                                       |                                |                                |  |
| Non-Recurring                                                                               |                                |                                |                                |                                                           |                                |                                |                                |                                |                                |                                                                                                       |                                |                                |  |
| 1.1.1) AN/UPX-34A Kit - NonOrganic                                                          | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.267                                                                                             | 9 / 1.313                      | 11 / 1.580                     |  |
| <i>Subtotal: Non-Recurring</i>                                                              | - / 0.000                      | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / 0.267                                                                                             | - / 1.313                      | - / 1.580                      |  |
| <i>Subtotal: Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043)</i>                 | - / -                          | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.267                                                                                             | 9 / 1.313                      | 11 / 1.580                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                        | - / 0.000                      | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / 0.267                                                                                             | - / 1.313                      | - / 1.580                      |  |
| <b>Installation</b>                                                                         |                                |                                |                                |                                                           |                                |                                |                                |                                |                                |                                                                                                       |                                |                                |  |
| <b>Modification Item 1 of 1:</b> Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043) | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                 | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                                             | - / 3.872                      | - / 3.872                      |  |
| <i>Subtotal: Installation</i>                                                               | - / 0.000                      | - / -                          | - / -                          | - / -                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                 | - / 3.872                      | - / 3.872                      |  |
| <b>Total</b>                                                                                |                                |                                |                                |                                                           |                                |                                |                                |                                |                                |                                                                                                       |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                    | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                                              | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>3.082</b>                                                                                          | <b>15.420</b>                  | <b>18.502</b>                  |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>8 / Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043) |

|                                                         |                        |
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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** Radar Track Discriminator System (RTDS) AN/UPX-34A (MT043)

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: AN/UPX-34A Kit

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.704                      | 2 / 0.704                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 9 / 3.168                      | 9 / 3.168                      |
| Total             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 11 / 3.872                     | 11 / 3.872                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 11 | 11 |    |     |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 11 | 11 |    |     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                           | <b>Date:</b> February 2018                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems | <b>Modification Number / Title:</b><br>9 / AN/UPX-36 (MT044) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 8.564   | 34.393      | 42.957 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 8.564   | 34.393      | 42.957 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 8.564   | 34.393      | 42.957 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Replace or upgrade unique Shipboard IFF Interrogator Systems with common hardware configurations including the CP-2819/UPX processor and Mark XIIA Digital Interrogator (DI) equipment. Unique AN/UPX-36 interrogator systems currently installed on LSD 41 and LSD 49 ship classes will not meet Mode 5 requirements per Mark XIIA Cooperative IFF Operational Requirements Document 595-61-02 - dated 27 Apr 2001. Inventory Objective is 12.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   | <b>Date:</b> February 2018                                   |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                   |                                   |                                   |                                   |                                   | <b>Modification Number / Title:</b><br>9 / AN/UPX-36 (MT044) |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                         |                                   |                                   |                                   |                                                           |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                   |                                                              |                                   |                                   |  |
| <b>Models of Systems Affected:</b> AN/UPX-36                                    |                                   |                                   |                                   | <b>Modification Type:</b> Reliability                     |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b>     |                                   |                                                              |                                   |                                   |  |
| <b>Financial Plan</b>                                                           | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                       | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                    | <b>FY 2022</b>                    | <b>FY 2023</b>                                               | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                 | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                         | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                            | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                              |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   |                                                              |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/UPX-36 (MT044)                              |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   |                                                              |                                   |                                   |  |
| B Kits                                                                          |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   |                                                              |                                   |                                   |  |
| Non-Recurring                                                                   |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   |                                                              |                                   |                                   |  |
| 1.1.1) AN/UPX-36A Kit - NonOrganic                                              | - / -                             | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | 3 / 3.724                                                    | 9 / 11.984                        | 12 / 15.708                       |  |
| <i>Subtotal: Non-Recurring</i>                                                  | - / 0.000                         | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / 3.724                                                    | - / 11.984                        | - / 15.708                        |  |
| <i>Subtotal: AN/UPX-36 (MT044)</i>                                              | - / -                             | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | 3 / 3.724                                                    | 9 / 11.984                        | 12 / 15.708                       |  |
| <i>Subtotal: Procurement, All Modification Items</i>                            | - / 0.000                         | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / 3.724                                                    | - / 11.984                        | - / 15.708                        |  |
| <b>Installation</b>                                                             |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   |                                                              |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> AN/UPX-36 (MT044)                              | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                                                 | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                         | - / 0.000                                                    | - / 3.698                         | - / 3.698                         |  |
| <i>Subtotal: Installation</i>                                                   | - / 0.000                         | - / -                             | - / -                             | - / -                                                     | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                        | - / 3.698                         | - / 3.698                         |  |
| <b>Total</b>                                                                    |                                   |                                   |                                   |                                                           |                                   |                                   |                                   |                                   |                                   |                                                              |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                        | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                                              | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>0.000</b>                      | <b>8.564</b>                                                 | <b>34.393</b>                     | <b>42.957</b>                     |  |



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|---------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------|-----------|-----------|----------------|-----------|--------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                            |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2851 / ID Systems |                                       |                                       |                                       |                                       |                        |           |           |                |           | <b>Modification Number / Title:</b><br>9 / AN/UPX-36 (MT044) |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> AN/UPX-36 (MT044)                                    |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: AN/UPX-36A Kit |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                              |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                            | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                       |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                     | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                           |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                               |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | 3 / 0.927                             | 3 / 0.927                             |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                           |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | 9 / 2.771                             | 9 / 2.771                             |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                 |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                     | - / -                                 | 12 / 3.698                            | 12 / 3.698                            |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                           |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                              |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                       | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                            |                                       |                                       |                                       | <b>FY 2020</b>                        |                        |           |           | <b>FY 2021</b> |           |                                                              |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                       |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                 | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                    | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                    | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                         | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | -         | -                                                            | -         | -              | -         | -         | -         | -              | -         | -         | -         | 12        | 12         |
| Out                                                                                   | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                         | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | -         | -                                                            | -         | -              | -         | -         | -         | -              | -         | -         | -         | 12        | 12         |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------|--------------------|----------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|----------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                    |                    |                      |                                                                                                   |                                            |                | <b>Date:</b> February 2018 |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                                    |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2867 / Joint Precision Approach and Landing System(JPALS) |                                            |                |                            |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                | <b>Program Elements for Code B Items:</b> 0603860N |                    |                      |                                                                                                   | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                |
| <b>Line Item MDAP/MAIS Code:</b> 238                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                    |                    |                      |                                                                                                   |                                            |                |                            |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                                    | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                  | -                  | -                    | -                                                                                                 | -                                          | -              | -                          | 16                 | 16             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.000              | 0.000          | 0.000          | 38.094                                             | 0.000              | 38.094               | 62.391                                                                                            | 66.226                                     | 10.277         | 10.496                     | 183.207            | 370.691        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                  | -                  | -                    | -                                                                                                 | -                                          | -              | -                          | -                  | -              |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.000              | 0.000          | 0.000          | 38.094                                             | 0.000              | 38.094               | 62.391                                                                                            | 66.226                                     | 10.277         | 10.496                     | 183.207            | 370.691        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                                  | -                  | -                    | -                                                                                                 | -                                          | -              | -                          | -                  | -              |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>38.094</b>                                      | <b>0.000</b>       | <b>38.094</b>        | <b>62.391</b>                                                                                     | <b>66.226</b>                              | <b>10.277</b>  | <b>10.496</b>              | <b>183.207</b>     | <b>370.691</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                    |                    |                      |                                                                                                   |                                            |                |                            |                    |                |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | 4.137                                              | -                  | 4.137                | 4.589                                                                                             | 3.545                                      | 3.568          | 3.642                      | Continuing         | Continuing     |
| Flyaway Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                  | -                  | -                    | -                                                                                                 | -                                          | -              | -                          | -                  | -              |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                  | -                  | -                    | -                                                                                                 | -                                          | -              | -                          | -                  | -              |
| <br><b>Description:</b><br>The Joint Precision Approach and Landing System (JPALS) is the primary precision approach and landing system for CVN and LHA/D ships to support aircraft without SPN-46 ACLS capability including F-35B, F-35C, MQ-25 and future platforms. JPALS ship systems are required to provide CVN and LHA/D ships a primary precision approach capability during night and instrument flight conditions, including coupled approach capability to a hover transition point for LHA/D ships, and coupled approach to the deck (auto-land) capability aboard CVN ships. JPALS also provides the over-the-air inertial alignment capability for CVN and LHA/D ships to support aircraft platforms without Link-4A capability, including F-35, MQ-25 and future platforms. JPALS MS B occurred July 2016 and MS C is scheduled for second quarter 2019. |                    |                |                |                                                    |                    |                      |                                                                                                   |                                            |                |                            |                    |                |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                  |                                        |                    |                                                    |                       |                                              |                                                                                                   |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment |                                        |                    |                                                    |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2867 / Joint Precision Approach and Landing System(JPALS) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                           |                                        |                    | <b>Program Elements for Code B Items:</b> 0603860N |                       |                                              | <b>Other Related Program Elements:</b> N/A                                                        |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> 238                                                                                                                                               |                                        |                    |                                                    |                       |                                              |                                                                                                   |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                           |                                        |                    |                                                    |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                                    | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                | <b>Title*</b>                          | <b>Subexhibits</b> | <b>ID CD</b>                                       | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                                      | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-3a                                                                                                                                                                               | 1 / CR001 AN/USN-3 (V) (Modernization) |                    |                                                    |                       | - / 0.000                                    | - / 0.000                                                                                         | - / 0.000                                    | - / 38.094                                   | - / 0.000                                    | - / 38.094                                   |
| <b>P-40</b>                                                                                                                                                                        | <b>Total Gross/Weapon System Cost</b>  |                    |                                                    |                       | <b>- / 0.000</b>                             | <b>- / 0.000</b>                                                                                  | <b>- / 0.000</b>                             | <b>- / 38.094</b>                            | <b>- / 0.000</b>                             | <b>- / 38.094</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                           |                                        |                    |                                                    |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                                                    | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                | <b>Title*</b>                          | <b>Subexhibits</b> | <b>ID CD</b>                                       | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                                      | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-3a                                                                                                                                                                               | 1 / CR001 AN/USN-3 (V) (Modernization) |                    |                                                    |                       | - / 62.391                                   | - / 66.226                                                                                        | - / 10.277                                   | - / 10.496                                   | - / 183.207                                  | - / 370.691                                  |
| <b>P-40</b>                                                                                                                                                                        | <b>Total Gross/Weapon System Cost</b>  |                    |                                                    |                       | <b>- / 62.391</b>                            | <b>- / 66.226</b>                                                                                 | <b>- / 10.277</b>                            | <b>- / 10.496</b>                            | <b>16 / 183.207</b>                          | <b>16 / 370.691</b>                          |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.               |                                        |                    |                                                    |                       |                                              |                                                                                                   |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                             |                                        |                    |                                                    |                       |                                              |                                                                                                   |                                              |                                              |                                              |                                              |

**Justification:**

Note: Line item 2867 Joint Precision Approach and Landing System (JPALS) is a new start P-1 line item within the Other Procurement, Navy appropriation account.

FY19 funds the procurement of 3 JPALS Systems and other support necessary to field the JPALS ship systems onboard CVN and LHA/D ships that are required to provide the primary precision approach, landing, on-deck inertial alignment, surveillance, and auto-land capability for F-35B/C and all future low observable manned and unmanned platforms.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                      |                                                                                                   | <b>Date:</b> February 2018                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 | <b>P-1 Line Item Number / Title:</b><br>2867 / Joint Precision Approach and Landing System(JPALS) | <b>Modification Number / Title:</b><br>1 / CR001 AN/USN-3 (V) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 0.000       | 0.000   | 0.000   | 38.094       | 0.000       | 38.094          | 62.391  | 66.226  | 10.277  | 10.496  | 183.207     | 370.691 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 0.000       | 0.000   | 0.000   | 38.094       | 0.000       | 38.094          | 62.391  | 66.226  | 10.277  | 10.496  | 183.207     | 370.691 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 0.000       | 0.000   | 0.000   | 38.094       | 0.000       | 38.094          | 62.391  | 66.226  | 10.277  | 10.496  | 183.207     | 370.691 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

JPALS ship systems are required to provide CVN and LH ships a primary precision approach capability during night and instrument flight conditions, including coupled approach capability to a hover transition point for LHA/D ships, and coupled approach to the deck (auto-land) capability aboard CVN ships. JPALS also provides the over-the-air inertial alignment capability for CVN and LHA/D ships to support aircraft platforms without Link-4A capability, including F-35, MQ-25 and future platforms. Procurements will start third quarter FY19 after completion of MS C.

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|--------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|--------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                      |                                |                                |                                  |                                                                                            |                                |                                |                                | Date: February 2018            |                                                        |                                |                                |                                |              |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9 |                                |                                |                                  | P-1 Line Item Number / Title:<br>2867 / Joint Precision Approach and Landing System(JPALS) |                                |                                |                                |                                | Modification Number / Title:<br>1 / CR001 AN/USN-3 (V) |                                |                                |                                |              |
| ID Code (A=Service Ready, B=Not Service Ready) :                         |                                |                                |                                  |                                                                                            |                                |                                | MDAP/MAIS Code:                |                                |                                                        |                                |                                |                                |              |
| Models of Systems Affected: CVN, L-class ships.                          |                                |                                | Modification Type: Modernization |                                                                                            |                                |                                |                                | Related RDT&E PEs: 0603860N    |                                                        |                                |                                |                                |              |
| Financial Plan                                                           | Prior Years                    | FY 2017                        | FY 2018                          | FY 2019 Base                                                                               | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                | FY 2023                        | To Complete                    | Total                          |              |
|                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)   | Qty (Each) / Total Cost (\$ M)                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |              |
| Procurement                                                              |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| Modification Item 1 of 1: CR001 AN/USN-3 (V)                             |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| B Kits                                                                   |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| Recurring                                                                |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| 1.1.1) AN/USN-3 (V) - NonOrganic <sup>(1)</sup>                          |                                | - / -                          | - / -                            | - / -                                                                                      | 3 / 30.295                     | - / -                          | 3 / 30.295                     | 3 / 30.922                     | 3 / 31.319                                             | - / -                          | - / -                          | 8 / 88.949                     | 17 / 181.485 |
| Subtotal: Recurring                                                      |                                | - / 0.000                      | - / -                            | - / -                                                                                      | - / 30.295                     | - / -                          | - / 30.295                     | - / 30.922                     | - / 31.319                                             | - / -                          | - / -                          | - / 88.949                     | - / 181.485  |
| Non-Recurring                                                            |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| 1.2.1) Conversion Kit (Modernization) - Organic <sup>(2)</sup>           |                                | - / -                          | - / -                            | - / -                                                                                      | - / -                          | - / -                          | - / -                          | - / 2.500                      | - / 5.200                                              | - / -                          | - / -                          | - / -                          | - / 7.700    |
| Subtotal: Non-Recurring                                                  |                                | - / 0.000                      | - / -                            | - / -                                                                                      | - / -                          | - / -                          | - / -                          | - / 2.500                      | - / 5.200                                              | - / -                          | - / -                          | - / 0.000                      | - / 7.700    |
| Subtotal: CR001 AN/USN-3 (V)                                             |                                | - / -                          | - / -                            | - / -                                                                                      | 3 / 30.295                     | - / -                          | 3 / 30.295                     | 3 / 33.422                     | 3 / 36.519                                             | - / -                          | - / -                          | 8 / 88.949                     | 17 / 189.185 |
| Subtotal: Procurement, All Modification Items                            |                                | - / 0.000                      | - / -                            | - / -                                                                                      | - / 30.295                     | - / -                          | - / 30.295                     | - / 33.422                     | - / 36.519                                             | - / -                          | - / -                          | - / 88.949                     | - / 189.185  |
| Support (All Modification Items)                                         |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| 2.1) Integrated Logistics Support <sup>(3)</sup>                         |                                | - / -                          | - / -                            | - / -                                                                                      | - / 1.180                      | - / -                          | - / 1.180                      | - / 2.547                      | - / 2.599                                              | - / -                          | - / -                          | - / 7.511                      | - / 13.837   |
| 2.2) Production Engineering <sup>(4)</sup>                               |                                | - / -                          | - / -                            | - / -                                                                                      | - / 6.619                      | - / -                          | - / 6.619                      | - / 19.689                     | - / 19.987                                             | - / 2.756                      | - / 10.496                     | - / 64.612                     | - / 124.159  |
| Subtotal: Support                                                        |                                | - / 0.000                      | - / -                            | - / -                                                                                      | - / 7.799                      | - / -                          | - / 7.799                      | - / 22.236                     | - / 22.586                                             | - / 2.756                      | - / 10.496                     | - / 72.123                     | - / 137.996  |
| Installation                                                             |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| Modification Item 1 of 1: CR001 AN/USN-3 (V)                             |                                | - / 0.000                      | - / 0.000                        | - / 0.000                                                                                  | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 6.733                      | - / 7.121                                              | - / 7.521                      | - / 0.000                      | - / 22.135                     | - / 43.510   |
| Subtotal: Installation                                                   |                                | - / 0.000                      | - / -                            | - / -                                                                                      | - / -                          | - / -                          | - / -                          | - / 6.733                      | - / 7.121                                              | - / 7.521                      | - / -                          | - / 22.135                     | - / 43.510   |
| Total                                                                    |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |
| Total Cost (Procurement + Support + Installation)                        |                                | 0.000                          | 0.000                            | 0.000                                                                                      | 38.094                         | 0.000                          | 38.094                         | 62.391                         | 66.226                                                 | 10.277                         | 10.496                         | 183.207                        | 370.691      |
|                                                                          |                                |                                |                                  |                                                                                            |                                |                                |                                |                                |                                                        |                                |                                |                                |              |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                                        |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2867 / Joint Precision Approach and Landing System(JPALS) |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / CR001 AN/USN-3 (V) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CR001 AN/USN-3 (V)                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: TBD                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                | Manufacturer Location: TBD          |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                | Production Leadtime (in Months): 12 |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                        |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                                    |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | Apr 2019                                                                                          |           |                                |           | Apr 2020                       |                                     |                                |           | Apr 2021                       |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | Apr 2020                                                                                          |           |                                |           | Apr 2021                       |                                     |                                |           | Apr 2022                       |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> TBD:: Installation Name: FMP                                                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                            |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                                                |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                     |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                    |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | 3 / 6.733                      |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | 0 / 0.000                      |           | 3 / 6.733      |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | 3 / 7.121                      |           | - / -                          |           | - / -                                                         |           | - / -                          |           | 0 / 0.000                      |           | 3 / 7.121      |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | 3 / 7.521                      |           | - / -                                                         |           | - / -                          |           | 0 / 0.000                      |           | 3 / 7.521      |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                         |           | - / -                          |           | 8 / 22.135                     |           | 8 / 22.135     |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                                             |           | - / -                          |           | 3 / 6.733                      |                                     | 3 / 7.121                      |           | 3 / 7.521                      |           | - / -                                                         |           | - / -                          |           | 8 / 22.135                     |           | 17 / 43.510    |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                                    |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                                         | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                     | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                  | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                                                 | -         | -                              | -         | -                              | -                                   | 1                              | 2         | -                              | -         | 1                                                             | 2         | -                              | -         | 1                              | 2         | -              | -         | -         | -         | 8         | 17         |
| Out                                                                                                                                                                                                                                                                                                                                                                                 | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                                                 | -         | -                              | -         | -                              | -                                   | 1                              | 2         | -                              | -         | 1                                                             | 2         | -                              | -         | 1                              | 2         | -              | -         | -         | -         | 8         | 17         |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| (1) Procurement of Low Rate Initial Production (LRIP) JPALS ship systems begins in FY19 following MS C to support the US Navy Master Aviation Plan and US Navy ship availability schedules.                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| (2) FY2020 funds 1 JPALS EDM conversion kit. FY2021 funds 2 JPALS EDM conversion kits.                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| (3) Most of the program ILS efforts in FY19 are initial production costs (PCA, FCA), with the exception of minimal support to new contract efforts in the last quarter after contract award. In FY20, major production ILS efforts begin to include: IETM validation/verification, support to initial delivery of sparing and training packages, and production phase ILS planning. |            |                                |           |                                |           |                                |           |                                |           |                                                                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                               |           |                                |           |                                |           |                |           |           |           |           |            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                   | <b>Date:</b> February 2018                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>P-1 Line Item Number / Title:</b><br>2867 / Joint Precision Approach and Landing System(JPALS) | <b>Modification Number / Title:</b><br>1 / CR001 AN/USN-3 (V) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                   | <b>MDAP/MAIS Code:</b>                                        |
| <p>(4) FY19 only accounts for 1 quarter of production, the contract is expected to be awarding 3QFY19. FY20 is the first full year of production which will require full support to include: SW support of production required changes, systems integration lab support for system checkout and production integration into Aircraft platforms, Engineering support of the production effort, contract start up activities, productions start up support activities, first article check outs.</p> |                                                                                                   |                                                               |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                  |                    |                |                                               |                     |                    |                      |                                                                               |                |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2876 / Naval Mission Planning Systems |                |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                           |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      | <b>Other Related Program Elements:</b> N/A                                    |                |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                               |                    |                |                                               |                     |                    |                      |                                                                               |                |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                      | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                             | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                 | 235.822            | 13.910         | 14.526                                        | 11.966              | 0.000              | 11.966               | 11.983                                                                        | 20.630         | 18.365         | 18.741                     | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                              | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                             | -              | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                    | 235.822            | 13.910         | 14.526                                        | 11.966              | 0.000              | 11.966               | 11.983                                                                        | 20.630         | 18.365         | 18.741                     | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                              | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                             | -              | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                        | <b>235.822</b>     | <b>13.910</b>  | <b>14.526</b>                                 | <b>11.966</b>       | <b>0.000</b>       | <b>11.966</b>        | <b>11.983</b>                                                                 | <b>20.630</b>  | <b>18.365</b>  | <b>18.741</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                      |                    |                |                                               |                     |                    |                      |                                                                               |                |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                           | -                  | 0.368          | 2.683                                         | 0.317               | -                  | 0.317                | 0.160                                                                         | 0.097          | 0.404          | -                          | -                  | 4.029             |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                         | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                             | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                             | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                             | -              | -              | -                          | -                  | -                 |

**Description:**

This line item provides funding to procure Joint Mission Planning System (JMPS) workstations, Software/Production Engineering Support and Integrated Logistics Support (ILS). JMPS is the designated automated mission planning system for Naval Aviation, supporting over 40 Type/Model/Series (T/M/S), U.S. Navy and Marine Corps aircraft and expeditionary forces. Future manned JMPS platforms include: P-8, C/KC-130J, and CH-53K. JMPS enables weapon system employment by providing the information and decision aids needed to rapidly plan aircraft, weapon or sensor missions, load mission data into aircraft and weapons, conduct mission rehearsal and post mission analysis. JMPS consists of two types of workstations - Maritime (JMPS-M) and Expeditionary (JMPS-E). JMPS-M is the primary product within the Naval Mission Planning System (NavMPS) family of systems, which include Electronic Kneeboard (EKB) and Common Munitions Built In Test Reprogramming Equipment (CMBRE). The Navy's modern aircraft need data loaded from JMPS-M to fly their missions. As aircraft and weapons become increasingly advanced, they will require increased access, quantity, processing analysis and fidelity of data to support mission planning, mission execution and mission analysis. These data requirements will require additional advanced processors and greater amounts of continuous memory. JMPS-M flight planning seats refer to the computer workstations that employ the JMPS framework software. JMPS-E is a scalable, tailorable and collaborative web-based mission planning and execution monitoring tool for Amphibious Squadron Staffs embarked with each Amphibious Ready Group (ARG) and Expeditionary Strike Group (ESG). CMBRE provides USN/USMC forces the critical capability to perform built in test and programming/ reprogramming of various weapons. Program cost is not directly related to FY hardware quantity; software is a cost factor independent of FY hardware quantity and cost. Funding profile accounts for required four year workstation refresh cycle to preclude aging/obsolete hardware and reduce failure rates, procure supporting emerging technology such as EKB, and next generation CMBRE starting in FY20 to support advanced operational capabilities and address system obsolescence/cyber-security requirements/mission readiness requirements and support memory requirements for required JMPS planning capabilities.

Prior to FY17, the EKB was funded in BLI 4268.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       |             |                                               |                |                                          |                                                                               |                                          | <b>Date:</b> February 2018               |                                          |                                          |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>2876 / Naval Mission Planning Systems |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                       |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                                    |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |             |                                               |                |                                          |                                                                               |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       |             |                                               |                | Prior Years                              | FY 2017                                                                       | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Title*                                | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                      | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 / Naval Mission Planning Systems    | P-5a        |                                               |                | - / 235.822                              | - / 13.910                                                                    | - / 14.526                               | - / 11.966                               | - / 0.000                                | - / 11.966                               |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Total Gross/Weapon System Cost</b> |             |                                               |                | <b>- / 235.822</b>                       | <b>- / 13.910</b>                                                             | <b>- / 14.526</b>                        | <b>- / 11.966</b>                        | <b>- / 0.000</b>                         | <b>- / 11.966</b>                        |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |             |                                               |                |                                          |                                                                               |                                          |                                          |                                          |                                          |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                       |             |                                               |                |                                          |                                                                               |                                          |                                          |                                          |                                          |
| <p><b>Justification:</b><br/>Items to be funded in this line include:</p> <p>Workstation Components - JMPS-M and JMPS-E procure tactical computer hardware through a non-developmental item acquisition strategy. Tactical computer equipment is used to plan and analyze expeditionary missions and aircraft routes under various mission configurations and operational threat environments. Primary outputs are tasking orders, courses of action (COAs), Route Plans, Munitions / Weapons Plans, and Navigation and mission essential data loads for mission execution. New workstations consist of aircraft unique data transfer devices and interfaces, Memory Data Loader Receptacles (MDLR) Small Computer Standard Interface (SCSI) (MDLR-S), Electronic Kneeboard (EKB), Common Munitions Bit Reprogramming Equipment (CMBRE), Ogden Data Device Ethernet Crypto (ODD-EC), Data Storage Unit Receptacle SCSI (DSUR-S), network hubs, printers, fleet training school workstations, JMPS Application Central Access Library (JACAL), training assets, and other peripheral devices for USN/USNR/USMC/USMCR missions. Next generation CMBRE OPN efforts begin in FY21. JMPS Authority to Operate (ATO) requires compliance with Naval Network Warfare Command (NNWC)-issued Information Assurance (IA) mandates and Communications Tasking Orders (CTOs).</p> <p>Software/Production Engineering Support - The NavMPS program produces software releases via an evolutionary development process. These releases contain enhancements based on fleet inputs and technology challenges. They also contain changes required to retain compatibility with supported platforms, associated weapons, and threat and imagery databases providing input to NavMPS. Software releases are independent of hardware buys. This cost element includes production support services, engineering support services, independent verification and validation test and acceptance, site activation, IA compliance and quality assurance efforts.</p> <p>Integrated Logistics Support - The NavMPS program conducts site surveys, prepares site installation drawings and provides on-site engineering and logistics evaluations for installations and delivery systems to ensure compliance with the specified configuration. This includes the production and delivery of technical documentation and training materials such as OPNOTES, installation instructions and user manuals required during the fielding of NavMPS products. ILS is a cost factor independent of FY hardware quantity and cost.</p> <p>FY19 provides funding to procure seven hundred fifty (750) JMPS-M flight planning seats, five (5) JMPS-E workstations, Electronic Kneeboards (EKB), training assets, and other JMPS support equipment; continues the release of software enhancements based on fleet inputs, emerging technologies, cybersecurity mandates and associated logistics support. FY19 laptop procurement supports the FA-18, EA-18G, P-3 and V-22 platforms. This hardware is required to field critical electronic attack mission planning capabilities and support cyber security mandates which ensures air superiority and projected military force in contested areas. Updated hardware is required to continue to meet JMPS operational "Time-To-Plan" requirements for complex platforms which include F/A-18 (all variants) and EA-18G. Additionally, funding provides for database systems with storage space capable of storing National Geospatial-Intelligence Agency (NGA) world-wide map data with associated network hardware. This will provide the Fleet with the required storage for map data, Digital Terrain Elevation Data (DTED) and imagery necessary to plan missions.</p> <p>The FY 2019 funding request was reduced by \$0.042M to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> |                                       |             |                                               |                |                                          |                                                                               |                                          |                                          |                                          |                                          |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                |            |                   |                |                                                                        |                   |                |                 |                   |                | Date: February 2018                                                |                   |                |            |                   |                |            |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                                                               |  |                |            |                   |                | P-1 Line Item Number / Title:<br>2876 / Naval Mission Planning Systems |                   |                |                 |                   |                | Item Number / Title [DODIC]:<br>1 / Naval Mission Planning Systems |                   |                |            |                   |                |            |                   |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                |            |                   |                |                                                                        |                   |                | MDAP/MAIS Code: |                   |                |                                                                    |                   |                |            |                   |                |            |                   |
| Resource Summary                                                                                                                       |  |                |            | Prior Years       |                | FY 2017                                                                |                   | FY 2018        |                 | FY 2019 Base      |                | FY 2019 OCO                                                        |                   | FY 2019 Total  |            |                   |                |            |                   |
| Procurement Quantity (Units in Each)                                                                                                   |  |                |            | -                 |                | -                                                                      |                   | -              |                 | -                 |                | -                                                                  |                   | -              |            |                   |                |            |                   |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              |  |                |            | 235.822           |                | 13.910                                                                 |                   | 14.526         |                 | 11.966            |                | 0.000                                                              |                   | 11.966         |            |                   |                |            |                   |
| Less PY Advance Procurement (\$ in Millions)                                                                                           |  |                |            | -                 |                | -                                                                      |                   | -              |                 | -                 |                | -                                                                  |                   | -              |            |                   |                |            |                   |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 |  |                |            | 235.822           |                | 13.910                                                                 |                   | 14.526         |                 | 11.966            |                | 0.000                                                              |                   | 11.966         |            |                   |                |            |                   |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           |  |                |            | -                 |                | -                                                                      |                   | -              |                 | -                 |                | -                                                                  |                   | -              |            |                   |                |            |                   |
| Total Obligation Authority (\$ in Millions)                                                                                            |  |                |            | 235.822           |                | 13.910                                                                 |                   | 14.526         |                 | 11.966            |                | 0.000                                                              |                   | 11.966         |            |                   |                |            |                   |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                |            |                   |                |                                                                        |                   |                |                 |                   |                |                                                                    |                   |                |            |                   |                |            |                   |
| Initial Spares (\$ in Millions)                                                                                                        |  |                |            | -                 |                | 0.368                                                                  |                   | 2.683          |                 | 0.317             |                | -                                                                  |                   | 0.317          |            |                   |                |            |                   |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          |  |                |            | -                 |                | -                                                                      |                   | -              |                 | -                 |                | -                                                                  |                   | -              |            |                   |                |            |                   |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                |            |                   |                |                                                                        |                   |                |                 |                   |                |                                                                    |                   |                |            |                   |                |            |                   |
| Cost Elements                                                                                                                          |  | Prior Years    |            |                   | FY 2017        |                                                                        |                   | FY 2018        |                 |                   | FY 2019 Base   |                                                                    |                   | FY 2019 OCO    |            |                   | FY 2019 Total  |            |                   |
|                                                                                                                                        |  | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                             | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)      | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                         | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| Hardware - JMPS Hardware Cost                                                                                                          |  |                |            |                   |                |                                                                        |                   |                |                 |                   |                |                                                                    |                   |                |            |                   |                |            |                   |
| Recurring Cost                                                                                                                         |  |                |            |                   |                |                                                                        |                   |                |                 |                   |                |                                                                    |                   |                |            |                   |                |            |                   |
| 1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT <sup>(†)</sup> (1)                                                                            |  | 4,622.70       | 10,424     | 48.187            | 3,047.25       | 750                                                                    | 2.285             | 3,210.00       | 750             | 2.408             | 3,210.00       | 750                                                                | 2.408             | -              | -          | -                 | 3,210.00       | 750        | 2.408             |
| 1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE <sup>(†)</sup> (2)                                                                           |  | 5,090.52       | 232        | 1.181             | 3,047.25       | 5                                                                      | 0.015             | 3,210.00       | 5               | 0.016             | 3,210.00       | 5                                                                  | 0.016             | -              | -          | -                 | 3,210.00       | 5          | 0.016             |
| 1.1.3) S7850 JMPS-M Support Equipment <sup>(3)</sup>                                                                                   |  | -              | -          | 11.386            | -              | -                                                                      | 3.135             | -              | -               | 5.141             | -              | -                                                                  | 2.611             | -              | -          | -                 | -              | -          | 2.611             |
| 1.1.4) S7851 JMPS-E Support Equipment <sup>(4)</sup>                                                                                   |  | -              | -          | 0.064             | -              | -                                                                      | 0.021             | -              | -               | 0.022             | -              | -                                                                  | 0.023             | -              | -          | -                 | -              | -          | 0.023             |
| Subtotal: Recurring Cost                                                                                                               |  | -              | -          | 60.818            | -              | -                                                                      | 5.456             | -              | -               | 7.587             | -              | -                                                                  | 5.058             | -              | -          | -                 | -              | -          | 5.058             |
| Subtotal: Hardware - JMPS Hardware Cost                                                                                                |  | -              | -          | 60.818            | -              | -                                                                      | 5.456             | -              | -               | 7.587             | -              | -                                                                  | 5.058             | -              | -          | -                 | -              | -          | 5.058             |
| Support Cost                                                                                                                           |  |                |            |                   |                |                                                                        |                   |                |                 |                   |                |                                                                    |                   |                |            |                   |                |            |                   |
| 2.1) S7820 Other Costs                                                                                                                 |  | -              | -          | 152.015           | -              | -                                                                      | -                 | -              | -               | -                 | -              | -                                                                  | -                 | -              | -          | -                 | -              | -          | -                 |
| 2.2) S7830 Software/ Production Engineering Support <sup>(5)</sup>                                                                     |  | -              | -          | 16.948            | -              | -                                                                      | 6.449             | -              | -               | 4.966             | -              | -                                                                  | 4.951             | -              | -          | -                 | -              | -          | 4.951             |
| 2.3) S7800 Integrated Logistics Support <sup>(6)</sup>                                                                                 |  | -              | -          | 6.041             | -              | -                                                                      | 2.005             | -              | -               | 1.973             | -              | -                                                                  | 1.957             | -              | -          | -                 | -              | -          | 1.957             |
| Subtotal: Support Cost                                                                                                                 |  | -              | -          | 175.004           | -              | -                                                                      | 8.454             | -              | -               | 6.939             | -              | -                                                                  | 6.908             | -              | -          | -                 | -              | -          | 6.908             |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                   |               |                      |                   |               |                                                                        |                   |               |                      |                   |               |                      | Date: February 2018                                                |               |                      |                   |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 9                       |                   |               |                      |                   |               | P-1 Line Item Number / Title:<br>2876 / Naval Mission Planning Systems |                   |               |                      |                   |               |                      | Item Number / Title [DODIC]:<br>1 / Naval Mission Planning Systems |               |                      |                   |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                   |               |                      |                   |               |                                                                        |                   |               |                      | MDAP/MAIS Code:   |               |                      |                                                                    |               |                      |                   |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                   |               |                      |                   |               |                                                                        |                   |               |                      |                   |               |                      |                                                                    |               |                      |                   |               |                      |
| Cost Elements                                                                                  | Prior Years       |               |                      | FY 2017           |               |                                                                        | FY 2018           |               |                      | FY 2019 Base      |               |                      | FY 2019 OCO                                                        |               |                      | FY 2019 Total     |               |                      |
|                                                                                                | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                   | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$)                                                  | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Gross/Weapon System Cost                                                                       | -                 | -             | 235.822              | -                 | -             | 13.910                                                                 | -                 | -             | 14.526               | -                 | -             | 11.966               | -                                                                  | -             | 0.000                | -                 | -             | 11.966               |

(t) indicates the presence of a P-5a

**Footnotes:**

- (1) FY19 unit cost and total cost only reflect JMPS-M laptop procurement. Quantities reflect JMPS-M laptop procurement. Quantities adjusted to meet Fleet demand and number of Mission Planning Environments/aircraft supported (over 40 T/M/S in FY19). JMPS laptop quantities are currently based on Fleet demand which is validated by CNAF. FY18-23 laptop unit costs are based on current FY16/FY17 laptop model (GETAC X400), plus inflation and additional costs due to additional data storage, multiple communication ports for data transfer and peripheral requirements. The laptop candidates are determined by Fleet requirements and COTS/Military spec software/hardware compatibility. The Flight Planning Seats are on a two year procurement cycle. Contract was awarded February 2016 establishing the FY 16/17 laptop unit cost.
- (2) FY19 unit cost and total cost only reflect JMPS-E laptop procurement. Quantities reflect JMPS-E laptop procurement. Quantities adjusted to meet Fleet demand. FY18-23 laptop unit costs are based on FY16/FY17 laptop model (GETAC X400), plus inflation and additional costs due to additional data storage, multiple communication ports for data transfer and peripheral requirements. The laptop candidates are determined by Fleet requirements and COTS/Military spec software/hardware compatibility. The Flight Planning Seats are on a two year procurement cycle. Contract was awarded February 2016 establishing the FY 16/17 laptop unit cost.
- (3) Support Equipment includes storage devices, network hubs, printers, initial fleet training school workstations, Advanced Data Loader Receptacles, Electronic Kneeboards (EKB), Common Munitions Bit Reprogramming Equipment (CMBRE) prior to FY21, training assets, and other peripheral devices for USN/USNR/USMC/USMCR missions. Support Equipment adjusted to meet Fleet demand and number of Mission Planning Environments/aircraft supported (over 40 T/M/S in FY19). FY18 increase due to OCO funding to support the Common Munitions Bit and Reprogramming Equipment (CMBRE) upgrade and replacement units that support fleet operations.
- (4) FY19 cost growth above inflation is caused by rounding. Support Equipment includes storage devices, network hubs, printers, and other peripheral devices for USN/USNR/USMC/USMCR missions.
- (5) Software/Production Engineering Supports over 40 T/M/S, Mission Planning Environments/aircraft, and supports cyber security mandates.
- (6) Integrated Logistics Support provides JMPS technical documentation, training materials and installation instructions that are compliant with cyber security mandates and Communications Tasking Orders (CTOs) for newly deployed platforms.

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|---------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------|--|--|--|--|
| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy             |  |  |  |                                                                               |  |  |  | <b>Date:</b> February 2018                                                |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 9 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2876 / Naval Mission Planning Systems |  |  |  | <b>Item Number / Title [DODIC]:</b><br>1 / Naval Mission Planning Systems |  |  |  |  |

| Cost Elements                             | O<br>C<br>O | FY                   | Contractor and Location              | Method/Type<br>or<br>Funding Vehicle | Location of PCO   | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
|-------------------------------------------|-------------|----------------------|--------------------------------------|--------------------------------------|-------------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| 1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT  |             | 2017 <sup>(7)</sup>  | OSI Federal Technologies / Aldie, VA | C / FFP                              | NAWCAD, Lakehurst | Feb 2017      | Mar 2017                     | 750           | 3,047.25          | Y                      |                               | Oct 2015          |
| 1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT  |             | 2018 <sup>(8)</sup>  | TBD / TBD                            | C / FFP                              | TBD               | Feb 2018      | Mar 2018                     | 750           | 3,210.00          | Y                      |                               | Oct 2017          |
| 1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT  |             | 2019 <sup>(9)</sup>  | TBD / TBD                            | C / FFP                              | TBD               | Feb 2019      | Mar 2019                     | 750           | 3,210.00          | Y                      |                               | Oct 2017          |
| 1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE |             | 2017 <sup>(10)</sup> | OSI Federal Technologies / Aldie, VA | C / FFP                              | NAWCAD, Lakehurst | Feb 2017      | Mar 2017                     | 5             | 3,047.25          | Y                      |                               | Oct 2015          |
| 1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE |             | 2018 <sup>(11)</sup> | TBD / TBD                            | C / FFP                              | TBD               | Feb 2018      | Mar 2018                     | 5             | 3,210.00          | Y                      |                               | Oct 2017          |
| 1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE |             | 2019 <sup>(12)</sup> | TBD / TBD                            | C / FFP                              | TBD               | Feb 2019      | Mar 2019                     | 5             | 3,210.00          | Y                      |                               | Oct 2017          |

**Footnotes:**

<sup>(7)</sup> JMPS laptops are procured every two years where pricing and fleet requirements are evaluated to ensure JMPS laptops meet fleet requirements while remaining cost effective.

<sup>(8)</sup> The FY18/19 JMPS laptop effort is a competitive 2nd Qtr. FY18 award therefore the performing activity and location are currently TBD to support a competitive contracting strategy. This contract consists of a base year (FY18) and option year that will affect the current budget year. Once awarded, the performing activity and location will be updated to reflect the selected contractor.

<sup>(9)</sup> The FY18/19 JMPS laptop effort is a competitive 2nd Qtr. FY18 award therefore the performing activity and location are currently TBD to support a competitive contracting strategy. This contract consists of a base year (FY18) and option year that will affect the current budget year. Once awarded, the performing activity and location will be updated to reflect the selected contractor.

<sup>(10)</sup> JMPS laptops are procured every two years where pricing and fleet requirements are evaluated to ensure JMPS laptops meet fleet requirements while remaining cost effective.

<sup>(11)</sup> The FY18/19 JMPS laptop effort is a competitive 2nd Qtr. FY18 award therefore the performing activity and location are currently TBD to support a competitive contracting strategy. This contract consists of a base year (FY18) and option year that will affect the current budget year. Once awarded, the performing activity and location will be updated to reflect the selected contractor.

<sup>(12)</sup> The FY18/19 JMPS laptop effort is a competitive 2nd Qtr. FY18 award therefore the performing activity and location are currently TBD to support a competitive contracting strategy. This contract consists of a base year (FY18) and option year that will affect the current budget year. Once awarded, the performing activity and location will be updated to reflect the selected contractor.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                         |                    |                |                                               |                     |                    |                      |                                                                            |                |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                  |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      | <b>Other Related Program Elements:</b> 0604231N                            |                |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                      |                    |                |                                               |                     |                    |                      |                                                                            |                |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                   | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                             | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                             | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                          | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                        | 86.819             | 23.908         | 40.325                                        | 42.010              | 0.000              | 42.010               | 28.020                                                                     | 29.660         | 29.952         | 30.555                     | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                     | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                          | -              | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                           | 86.819             | 23.908         | 40.325                                        | 42.010              | 0.000              | 42.010               | 28.020                                                                     | 29.660         | 29.952         | 30.555                     | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                     | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                          | -              | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                               | <b>86.819</b>      | <b>23.908</b>  | <b>40.325</b>                                 | <b>42.010</b>       | <b>0.000</b>       | <b>42.010</b>        | <b>28.020</b>                                                              | <b>29.660</b>  | <b>29.952</b>  | <b>30.555</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                             |                    |                |                                               |                     |                    |                      |                                                                            |                |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                  | -                  | 0.333          | 2.189                                         | 1.625               | -                  | 1.625                | 1.511                                                                      | 0.584          | 1.465          | 0.889                      | Continuing         | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                              | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                          | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                  | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                          | -              | -              | -                          | -                  | -                 |

**Description:**  
 Commencing in FY17, OPN line item 2246 (PE 0204271N) was consolidated with OPN line item 2906 to align TacMobile C4I procurements with TacMobile MPRF P-8A Aircraft Support Systems procurements. Additionally in FY17, Deployable Joint Command and Control (DJC2) funding from line item 2804 was realigned to line item 2906 as part of the Budget Line Item Consolidation effort.

Tactical/Mobile (TacMobile) C4I Systems: The Tactical Mobile program provides evolutionary systems and equipment upgrades to support the Maritime Patrol and Reconnaissance Force Commanders with the capability to plan, direct and control the tactical operations of Maritime Patrol and Reconnaissance Aircraft (MPRA) and other assigned units within their respective area of responsibility. Looking ahead, TacMobile provides critical reach-back capabilities between the Maritime Patrol and Reconnaissance Aircraft, primarily the P-8A/Poseidon, and MQ-4C/Triton, and the Maritime Intelligence Surveillance and Reconnaissance Enterprise. These operations include littoral, open ocean, and over land long-dwell surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, anti-submarine warfare, mining, search and rescue, indications and warnings, and special operations. The missions are supported by the fixed-site Tactical Operations Centers (TOCs) and Mobile Tactical Operations Centers (MTOCs). Each TacMobile unit is a system-of-systems. TOCs provide sensor and tactical data communications systems; mission planning/mission support, sensor analysis capabilities; avionics and weapons system interfaces, media devices and data handling capabilities, at fixed-site locations. MTOC is a scalable, mobile version of the TOC for contingency operations and for support of MPRA operations from remote forward operating base airfields.

7 TOCs: 6 operational systems (located at Jacksonville Florida, Sigonella Italy, Kaneohe Bay Hawaii, Whidbey Island Washington, Kadena Japan, and Bahrain), and 1 laboratory system (the "TacMobile Systems Integration Lab" (TMSIL), collocated at SSC Atlantic detachment Patuxent River Maryland with PMA-290's P-8A "Pax River Systems Integration Lab" (PAXSIL)).

15 MTOCs: 9 operational systems (5 systems home ported at NAS Jacksonville Florida and 4 systems NAS Whidbey Island Washington), 1 laboratory system (an aircraft integration lab located at Navy Detachment Dallas), 1 C4I engineering and maintenance support system (located at the In Service Engineering Activity (ISEA), SSC Atlantic), 1 C4I mobile systems schoolhouse (located at the Center for Naval Air Technical Training (CNATT) Jacksonville Florida), 1 system undergoing production and 2 systems planned for procurement in FY19, to meet current operational configuration/requirements (SSC Atlantic), and 1 legacy system awaiting End-to-End refresh/recapitalization to meet current operational configuration/requirements (SSC Atlantic).

The TacMobile program uses an evolutionary development strategy consisting of incremental upgrades to meet new and emergent Fleet requirements, while retaining current capabilities. Increments are planned and resourced to support the MPRF Family of Systems aircraft: P-8A Poseidon aircraft and its upgrades; Advanced Airborne Sensor (AAS); and MQ-4C Triton.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0604231N                            |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><p>T4050 will fund TacMobile Command, Control, Computer, Communications and Intelligence (C4I), network, and reach back communications systems modernization. Additionally, the line item funds TacMobile interfaces with P-8A (including Advanced Airborne Sensor (AAS)) and MQ-4C aircraft systems and sensors, and tactical communications modernization. Together these separate capabilities are combined to provide the TOCs and MTOCs with an Integrated Warfighting Capability to support Maritime Patrol P-8A operation requirements and pace aircraft modernization requirements.</p> <p>TacMobile C4I/P-8A modernization are synchronized to provide Technical Refreshes and incremental capability upgrades which provide the underlying C4I Infrastructure components and aircraft support capabilities components that ride on the C4I infrastructure. There are five major TacMobile components comprised of currently twenty three distinct subsystems that are developed in synchronization to work together, and are therefore fielded together. New or modernized aircraft interfaces are built specifically to integrate into the new or modernized C4I infrastructure. They operate together as an overarching system of systems.</p> <p>JH500. Deployable Joint Command and Control (DJC2) provides a self-contained, standardized, rapidly deployable, modular, scalable, and reconfigurable joint command and control (C2) capability to designated Geographic Combatant Commands (GCCs). DJC2 is the materiel solution to Defense Planning Guidance that called for the development of standing Joint Task Forces (JTF) with a deployable C2 capability. DJC2 will ensure that Joint Force Commanders (JFC) are equipped as well as trained and organized to carry out their C2 responsibilities. DJC2 provides GCCs and JFCs a mission critical, integrated family of systems with which to plan, control, coordinate, execute and assess operations. It is designed to deploy rapidly, set up within hours and quickly provide necessary C2 mission and collaboration functionality across the full spectrum of JTF operations. The DJC2 has also been deployed in support of Humanitarian Assistance and Disaster Relief (HA/DR) efforts. The capability is intended for all levels of conflict and will be reconfigurable to meet specific GCC and JTF mission requirements. This capability is interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.</p> <p>DJC2 sites are as follows: 6 DJC2 core systems garrisoned at USSOUTHCOM Tampa, Florida (1), USEUCOM Stuttgart, Germany (1), AFRICOM (SETAF) Vicenza, Italy (1), USPACOM Camp Smith, Hawaii (1), Marine Expeditionary Force (III MEF) Camp Hansen, Japan (1), and NAVEUR-NAVAF, JFC Naples, Italy (1).</p> <p>Note that DJC2 is not a follow-on or replacement system for the Global Command and Control System-Joint (GCCS-J); rather, DJC2 employs a suite of applications, ensuring interoperability with the worldwide-installed base of GCCS-J.</p> |                                               |                                                                            |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                           |                                                                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                      |                                                                                                                                  |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                    |                                                                                                                                  |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> 0604231N                            |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                        |                                                                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                    |                                                                                                                                  |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                             | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                         | <b>Title*</b>                                                                                                                    | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                               | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                       | Tactical/Mobile (TacMobile) C4I Systems                                                                                          | P-5a               |                                               |                       | - / 54.400                                   | - / 1.414                                                                  | - / 2.973                                    | - / 2.275                                    | - / -                                        | - / 2.275                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh (Tech Refresh)                                                         |                    |                                               |                       | - / 11.977                                   | - / 0.281                                                                  | - / 5.765                                    | - / 0.300                                    | - / 0.000                                    | - / 0.300                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 (Upgrade)                                                       |                    |                                               |                       | - / 20.442                                   | - / 22.213                                                                 | - / 23.687                                   | - / 12.688                                   | - / 0.000                                    | - / 12.688                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 3 / Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System (Tactical/Mobile (TacMobile) C4I Systems - End to End MTOC System) |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                  | - / 7.900                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 4 / Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System (Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System)        |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                  | - / 0.000                                    | - / 11.000                                   | - / 0.000                                    | - / 11.000                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 5 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 (Tech Refresh 2.1.2)                                            |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                  | - / 0.000                                    | - / 15.747                                   | - / 0.000                                    | - / 15.747                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                 | <b>Total Gross/Weapon System Cost</b>                                                                                            |                    |                                               |                       | <b>- / 86.819</b>                            | <b>- / 23.908</b>                                                          | <b>- / 40.325</b>                            | <b>- / 42.010</b>                            | <b>- / 0.000</b>                             | <b>- / 42.010</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                    |                                                                                                                                  |                    |                                               |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                             | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                         | <b>Title*</b>                                                                                                                    | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                               | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                       | Tactical/Mobile (TacMobile) C4I Systems                                                                                          | P-5a               |                                               |                       | - / -                                        | - / -                                                                      | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh (Tech Refresh)                                                         |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                  | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 18.323                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 (Upgrade)                                                       |                    |                                               |                       | - / 4.912                                    | - / 0.480                                                                  | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 84.422                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 3 / Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System (Tactical/Mobile (TacMobile) C4I Systems - End to End MTOC System) |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                  | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 7.900                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 4 / Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System (Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System)        |                    |                                               |                       | - / 0.600                                    | - / 0.000                                                                  | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 11.600                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                        | 5 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 (Tech Refresh 2.1.2)                                            |                    |                                               |                       | - / 11.858                                   | - / 17.191                                                                 | - / 2.500                                    | - / 0.000                                    | - / 0.000                                    | - / 47.296                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                 | <b>Total Gross/Weapon System Cost</b>                                                                                            |                    |                                               |                       | <b>- / 28.020</b>                            | <b>- / 29.660</b>                                                          | <b>- / 29.952</b>                            | <b>- / 30.555</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.<br>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding. |                                                                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              |                                              |                                              |                                              |
| <b>Justification:</b><br>The FY 2019 funding request was reduced by (\$0.117) million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.                                              |                                                                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              |                                              |                                              |                                              |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                               | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0604231N                            |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                               |                                                                            |
| <p>FY19 procures two additional MTOC C4I gear sets for Mobile Tactical Operations Center Manning/Training/Equipping efforts in support of increased worldwide Maritime Patrol and Reconnaissance Force operations. Nine currently operational MTOCS were procured back in the mid-1990's to support P-3 operations. As the P-8A aircraft replaced the P-3, and operations increased worldwide, it was realized that additional MTOCS are required in order to effectively conduct multi-site P-8A surveillance operations to counter/monitor growing threats. FY18 OCO funding procured the 10th MTOC C4I gear set. FY19 funding is for the eleventh and twelfth procurements which completes the Inventory Objective for MTOC gear sets and adequately supports P-8A surveillance efforts ensuring unfettered access of Sea-Lines of Communication and freedom of navigation for the United States and her Allies. FY19 also procures Technical Refresh of TacMobile TOC and MTOC C4I and aircraft interfaces. Specifically TR 2.1.1 continues procurement of Advanced Airborne Sensor (AAS) interface kits, and procures Joint Tactical Radio System (JTRS) receiver transmitters to address Link16 obsolescence; TR 2.1.2 procures Global Broadcast System (GBS) Refresh, Super High Frequency (SHF) Refresh, Ultra High Frequency (UHF)/Very High Frequency (VHF) Refresh, MT32 Voice Switch Display Refresh and Network Architecture Modernization. FY19 Installs Technical Refresh Items procured and produced in FY18 to maintain interoperability, address cyber security, and extend service life of fielded systems.</p> <p>FY19 funding procures DJC2 system enhancements including Global Broadcast System (GBS) communication updates for six sites. Additionally, DJC2 will field Next Generation Enclave (NGE) compute and storage resource at three sites and Environmental Control Unit (ECU) at one site due to existing GBS, NGE, and ECU units at those sites going end of life.</p> |                                               |                                                                            |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                  |            |                   |                                                                     |            |                   |                  |            |                   |                  |            |                   | Date: February 2018                                                |            |                   |                  |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|------------------|------------|-------------------|---------------------------------------------------------------------|------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|--------------------------------------------------------------------|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10   |       |                |                  |            |                   | P-1 Line Item Number / Title:<br>2906 / Tactical/Mobile C4I Systems |            |                   |                  |            |                   |                  |            |                   | Aggregated Items Title:<br>Tactical/Mobile (TacMobile) C4I Systems |            |                   |                  |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years      |            |                   | FY 2017                                                             |            |                   | FY 2018          |            |                   | FY 2019 Base     |            |                   | FY 2019 OCO                                                        |            |                   | FY 2019 Total    |            |                   |
|                                                                             |       |                | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)                                                    | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)                                                   | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| 1) T4050 Tactical/Mobile                                                    |       |                |                  |            |                   |                                                                     |            |                   |                  |            |                   |                  |            |                   |                                                                    |            |                   |                  |            |                   |
| 1.1) Consolidated Prior Year Requirements <sup>(1)</sup>                    | A     |                | 807.328          | 67         | 54.091            | -                                                                   | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                                                  | -          | -                 | -                | -          | -                 |
| Subtotal: 1) T4050 Tactical/Mobile                                          |       |                | -                | -          | 54.091            | -                                                                   | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                                                  | -          | -                 | -                | -          | -                 |
| 3) Support                                                                  |       |                |                  |            |                   |                                                                     |            |                   |                  |            |                   |                  |            |                   |                                                                    |            |                   |                  |            |                   |
| 3.1) Shore Pre-Installation and Design                                      | A     |                | -                | -          | 0.309             | -                                                                   | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                                                  | -          | -                 | -                | -          | -                 |
| Subtotal: 3) Support                                                        |       |                | -                | -          | 0.309             | -                                                                   | -          | -                 | -                | -          | -                 | -                | -          | -                 | -                                                                  | -          | -                 | -                | -          | -                 |
| 4) JH500 DJC2 Increment I System Enhancements                               |       |                |                  |            |                   |                                                                     |            |                   |                  |            |                   |                  |            |                   |                                                                    |            |                   |                  |            |                   |
| 4.1) DJC2 Increment I System Enhancements <sup>(2)(t)</sup>                 | A     |                | -                | -          | -                 | 235.631                                                             | 6          | 1.414             | 495.500          | 6          | 2.973             | 379.167          | 6          | 2.275             | -                                                                  | -          | -                 | 379.167          | 6          | 2.275             |
| Subtotal: 4) JH500 DJC2 Increment I System Enhancements                     |       |                | -                | -          | 0.000             | -                                                                   | -          | 1.414             | -                | -          | 2.973             | -                | -          | 2.275             | -                                                                  | -          | -                 | -                | -          | 2.275             |
| Total                                                                       |       |                | -                | -          | 54.400            | -                                                                   | -          | 1.414             | -                | -          | 2.973             | -                | -          | 2.275             | -                                                                  | -          | -                 | -                | -          | 2.275             |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(t) indicates the presence of a P-5a

**Footnotes:**

<sup>(1)</sup> Prior year only requirements include TOC/MTOC 2.0.1 & 2.1, TACAMO, Installs 2.0.1 & 2.1

<sup>(2)</sup> Quantities listed represent DJC2 core system sites. Unit costs vary due to the number or level of core system enhancements performed at each site from year to year. FY19 funding procures DJC2 system enhancements for six sites, focusing on delivering Next Generation Enclave (NGE) compute and storage resource, Global Broadcast System (GBS) communication and Environmental Control Units (ECUs). FY19 funds also includes delivering NGE enhancements with the addition of Command and Control in a Communications Denied Environment (C2CDE) equipment. These enhancements reduce DJC2 size, weight, and power requirements and also enhances DJC2 cyber security posture.

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy              |             |      |                                                                     |                                      |                 |               |                              |               | Date: February 2018                                          |                        |                               |                   |
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| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10 |             |      | P-1 Line Item Number / Title:<br>2906 / Tactical/Mobile C4I Systems |                                      |                 |               |                              |               | Aggregated Items:<br>Tactical/Mobile (TacMobile) C4I Systems |                        |                               |                   |
| Item Number / Title [DODIC]                                               | O<br>C<br>O | FY   | Contractor and Location                                             | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$ K)                                          | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 4) JH500 DJC2 Increment I System Enhancements                             |             |      |                                                                     |                                      |                 |               |                              |               |                                                              |                        |                               |                   |
| 4.1) DJC2 Increment I System Enhancements <sup>(2)</sup>                  |             | 2017 | SPAWAR / San Diego                                                  | C / FFP                              | Panama City, FL | Apr 2017      | Jun 2017                     | 6             | 235.631                                                      | Y                      |                               |                   |
| 4.1) DJC2 Increment I System Enhancements <sup>(2)</sup>                  |             | 2018 | SPAWAR / San Diego                                                  | C / FFP                              | Panama City, FL | Apr 2018      | Jun 2018                     | 6             | 495.500                                                      | Y                      |                               |                   |
| 4.1) DJC2 Increment I System Enhancements <sup>(2)</sup>                  |             | 2019 | SPAWAR / San Diego                                                  | C / FFP                              | Panama City, FL | Apr 2019      | Jun 2019                     | 6             | 379.167                                                      | Y                      |                               |                   |

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|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|--------------------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                       |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                              |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                  |                    |               |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                   | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 11.977             | 0.281          | 5.765          | 0.300                                                                      | 0.000              | 0.300                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                            | 0.000              | 18.323        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 11.977             | 0.281          | 5.765          | 0.300                                                                      | 0.000              | 0.300                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                            | 0.000              | 18.323        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>11.977</b>      | <b>0.281</b>   | <b>5.765</b>   | <b>0.300</b>                                                               | <b>0.000</b>       | <b>0.300</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                     | <b>0.000</b>       | <b>18.323</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                  |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                | -                  | -             |
| <b>Description:</b><br>Provides overarching technical modernization and technical refresh to fielded TacMobile systems.                       |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                  |                    |               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                             |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                       |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10       |                                |                                |                                |                                        | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                |                                |                                |                                |                                        |                                                                            |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                                  |                                |                                |  |
| <b>Models of Systems Affected:</b> Various                                             |                                |                                |                                | <b>Modification Type:</b> Tech Refresh |                                                                            |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604231N |                                |                                                                                                  |                                |                                |  |
| <b>Financial Plan</b>                                                                  | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                    | <b>FY 2019 OCO</b>                                                         | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                   | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                     |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                |                                                                                                  |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                |                                                                                                  |                                |                                |  |
| B Kits                                                                                 |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                |                                                                                                  |                                |                                |  |
| Recurring                                                                              |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                |                                                                                                  |                                |                                |  |
| 1.1.1) TOC - NonOrganic                                                                | 2 / 1.284                      | - / -                          | - / -                          | - / -                                  | - / -                                                                      | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / -                          | 2 / 1.284                      |  |
| 1.1.2) MTOC - NonOrganic <sup>(3)</sup>                                                | 8 / 7.483                      | - / -                          | 3 / 5.765                      | - / -                                  | - / -                                                                      | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / -                          | 11 / 13.248                    |  |
| 1.1.3) FY2013 OCO Funding (JMAST Tech Refresh) - NonOrganic                            | - / 2.025                      | - / -                          | - / -                          | - / -                                  | - / -                                                                      | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / -                          | - / 2.025                      |  |
| <i>Subtotal: Recurring</i>                                                             | - / 10.792                     | - / -                          | - / 5.765                      | - / -                                  | - / -                                                                      | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / 0.000                      | - / 16.557                     |  |
| <i>Subtotal: Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh</i>                 | 10 / 10.792                    | - / -                          | 3 / 5.765                      | - / -                                  | - / -                                                                      | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / -                          | 13 / 16.557                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                   | - / 10.792                     | - / -                          | - / 5.765                      | - / -                                  | - / -                                                                      | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / 0.000                      | - / 16.557                     |  |
| <b>Installation</b>                                                                    |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                |                                                                                                  |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh | - / 1.185                      | - / 0.281                      | - / 0.000                      | - / 0.300                              | - / 0.000                                                                  | - / 0.300                      | - / 0.000                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                        | - / 0.000                      | - / 1.766                      |  |
| <i>Subtotal: Installation</i>                                                          | - / 1.185                      | - / 0.281                      | - / -                          | - / 0.300                              | - / -                                                                      | - / 0.300                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                            | - / 0.000                      | - / 1.766                      |  |
| <b>Total</b>                                                                           |                                |                                |                                |                                        |                                                                            |                                |                                |                                        |                                |                                                                                                  |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                               | <b>11.977</b>                  | <b>0.281</b>                   | <b>5.765</b>                   | <b>0.300</b>                           | <b>0.000</b>                                                               | <b>0.300</b>                   | <b>0.000</b>                   | <b>0.000</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                                     | <b>0.000</b>                   | <b>18.323</b>                  |  |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |           |                                |           |                                |                                       |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: SSC LANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Manufacturer Location: Charleston, SC |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Production Leadtime (in Months): 9    |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                                  |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Sep 2017                       |           |                                |           | Sep 2018                       |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: TacMobile C4I Systems Tech Refresh                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                         |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                       | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                   |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                             |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                       | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | 9 / 1.185                      |           | 1 / 0.281                      |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 10 / 1.466                     |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | 3 / 0.300                      |           | 0 / 0.000                                                                  |           | 3 / 0.300                      |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | 0 / 0.000                      |           | 3 / 0.300                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | 9 / 1.185                      |           | 1 / 0.281                      |           | - / -                          |           | 3 / 0.300                      |           | 0 / 0.000                                                                  |           | 3 / 0.300                      |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                            |           | - / -                          |           | 0 / 0.000                      |           | 13 / 1.766     |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                                  |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                  | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                             | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                        | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 9          | -                              | 1         | -                              | -         | -                              | -         | -                              | -         | -                                                                          | 1         | 2                              | -         | -                              | -                                     | -                              | -         | -                              | -         | -                                                                                                | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 13         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 9          | -                              | 1         | -                              | -         | -                              | -         | -                              | -         | -                                                                          | 1         | 2                              | -         | -                              | -                                     | -                              | -         | -                              | -         | -                                                                                                | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 13         |
| <b>Footnotes:</b><br><sup>(3)</sup> 1. Quantities represent separate Command & Control & Intelligence (C2I), Communications, Aircraft Interface, and Mobility/Facility component system upgrades of TacMobile systems. 2. TacMobile Tech Refresh consists of refreshing 5 major components (made up of 23 individual subsystems) that range in cost from \$850K to \$2,500K. 3. FY17 installs include 1 unit procured in FY16 in BLI 2906 and 2 units procured in FY16 BLI 2246 due to line item consolidation. |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                  |           |                                |           |                                |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|----------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|---------------------------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                              |                    |                |                |                     |                                                                            |                      |                        |                |                | <b>Date:</b> February 2018                                                                              |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                        |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                 |                    |                |                |                     |                                                                            |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                         |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                 | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                         | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                          | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                      | 20.442             | 22.213         | 23.687         | 12.688              | 0.000                                                                      | 12.688               | 4.912                  | 0.480          | 0.000          | 0.000                                                                                                   | 0.000              | 84.422        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                         | 20.442             | 22.213         | 23.687         | 12.688              | 0.000                                                                      | 12.688               | 4.912                  | 0.480          | 0.000          | 0.000                                                                                                   | 0.000              | 84.422        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                             | <b>20.442</b>      | <b>22.213</b>  | <b>23.687</b>  | <b>12.688</b>       | <b>0.000</b>                                                               | <b>12.688</b>        | <b>4.912</b>           | <b>0.480</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                            | <b>0.000</b>       | <b>84.422</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                           |                    |                |                |                     |                                                                            |                      |                        |                |                |                                                                                                         |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| <b>Description:</b><br>Provides technical modernization and technical refresh to fielded TacMobile Command and Control, Networking, and Communications systems necessary to support P-8A Poseidon Increment 2 and MQ-4C Triton Unmanned Aerial System (UAS) at their initial Operating Capability (IOC) |                    |                |                |                     |                                                                            |                      |                        |                |                |                                                                                                         |                    |               |



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|-----------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                    |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                              |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10              |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                       |                                |                                |                                |                                                                            |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                                         |                                |                                |  |
| <b>Models of Systems Affected:</b> Inc 2.1                                                    |                                |                                |                                | <b>Modification Type:</b> Upgrade                                          |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604231N |                                |                                                                                                         |                                |                                |  |
| <b>Financial Plan</b>                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                          | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                            |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| B Kits                                                                                        |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| Recurring                                                                                     |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| 1.1.1) TOC - NonOrganic <sup>(4)</sup>                                                        | 10 / 7.349                     | 9 / 6.189                      | 9 / 6.704                      | 6 / 4.379                                                                  | - / -                          | 6 / 4.379                      | - / -                          | - / -                                  | - / -                          | - / -                                                                                                   | - / -                          | 34 / 24.621                    |  |
| 1.1.2) MTOC - NonOrganic <sup>(5)</sup>                                                       | 16 / 11.570                    | 15 / 12.501                    | 13 / 13.355                    | 5 / 5.499                                                                  | - / -                          | 5 / 5.499                      | 3 / 3.385                      | - / -                                  | - / -                          | - / -                                                                                                   | - / -                          | 52 / 46.310                    |  |
| <i>Subtotal: Recurring</i>                                                                    | - / 18.919                     | - / 18.690                     | - / 20.059                     | - / 9.878                                                                  | - / -                          | - / 9.878                      | - / 3.385                      | - / -                                  | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 70.931                     |  |
| <i>Subtotal: Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1</i>                 | 26 / 18.919                    | 24 / 18.690                    | 22 / 20.059                    | 11 / 9.878                                                                 | - / -                          | 11 / 9.878                     | 3 / 3.385                      | - / -                                  | - / -                          | - / -                                                                                                   | - / -                          | 86 / 70.931                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                          | - / 18.919                     | - / 18.690                     | - / 20.059                     | - / 9.878                                                                  | - / -                          | - / 9.878                      | - / 3.385                      | - / -                                  | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 70.931                     |  |
| <b>Support (All Modification Items)</b>                                                       |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| 2.1) Shore Pre-Installation Design                                                            | - / 0.321                      | - / 0.400                      | - / 0.400                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                   | - / -                          | - / 1.121                      |  |
| <i>Subtotal: Support</i>                                                                      | - / 0.321                      | - / 0.400                      | - / 0.400                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 1.121                      |  |
| <b>Installation</b>                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 | - / 1.202                      | - / 3.123                      | - / 3.228                      | - / 2.810                                                                  | - / 0.000                      | - / 2.810                      | - / 1.527                      | - / 0.480                              | - / 0.000                      | - / 0.000                                                                                               | - / 0.000                      | - / 12.370                     |  |
| <i>Subtotal: Installation</i>                                                                 | - / 1.202                      | - / 3.123                      | - / 3.228                      | - / 2.810                                                                  | - / -                          | - / 2.810                      | - / 1.527                      | - / 0.480                              | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 12.370                     |  |
| <b>Total</b>                                                                                  |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                         |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                      | <b>20.442</b>                  | <b>22.213</b>                  | <b>23.687</b>                  | <b>12.688</b>                                                              | <b>0.000</b>                   | <b>12.688</b>                  | <b>4.912</b>                   | <b>0.480</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                                            | <b>0.000</b>                   | <b>84.422</b>                  |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems | <b>Modification Number / Title:</b><br>2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1

#### Manufacturer Information

|                                        |                                       |
|----------------------------------------|---------------------------------------|
| Manufacturer Name: SSC LANT            | Manufacturer Location: Charleston, SC |
| Administrative Leadtime (in Months): 3 | Production Leadtime (in Months): 7    |

| Dates          | FY 2017  | FY 2018  | FY 2019  | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|---------|---------|---------|---------|
| Contract Dates | Jan 2017 | Jan 2018 | Jan 2019 |         |         |         |         |
| Delivery Dates | Jul 2017 | Aug 2018 | Aug 2019 |         |         |         |         |

#### Installation Information

**Method of Implementation:** [none specified]:: Installation Name: TacMobile C4I Systems Technical Refresh 2.1.1

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 12 / 1.202                     | 23 / 3.123                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 35 / 4.325                     |
| FY 2017           | - / -                          | - / -                          | 24 / 3.228                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 24 / 3.228                     |
| FY 2018           | - / -                          | - / -                          | - / -                          | 22 / 2.810                     | 0 / 0.000                      | 22 / 2.810                     | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 22 / 2.810                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 11 / 1.527                     | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 11 / 1.527                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 0.480                      | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.480                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 12 / 1.202                     | 23 / 3.123                     | 24 / 3.228                     | 22 / 2.810                     | 0 / 0.000                      | 22 / 2.810                     | 11 / 1.527                     | 3 / 0.480                      | - / -                          | - / -                          | 0 / 0.000                      | 95 / 12.370                    |

#### Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 12  | -       | 8  | 8  | 7  | -       | 8  | 8  | 8  | -       | 7  | 7  | 8  | -       | 6  | 5  | -  | -       | 3  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 95  |
| Out | 12  | -       | 8  | 8  | 7  | -       | 8  | 8  | 8  | -       | 7  | 7  | 8  | -       | 6  | 5  | -  | -       | 3  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 95  |

#### Footnotes:

<sup>(4)</sup> For Tactical Operations Center: 1. Quantities represent separate Command & Control & Intelligence (C2I), Communications, Aircraft Interface, and Mobility/Facility component system upgrades of TacMobile systems. 2. FY17 installs include 14 units procured in FY16 in BLI 2906 and 9 units procured in FY16 in BLI 2246. There is a 4-month integration period at SSC Lant after receipt of production items.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                            | <b>Date:</b> February 2018                                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems | <b>Modification Number / Title:</b><br>2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                            | <b>MDAP/MAIS Code:</b>                                                                                  |
| <p><sup>(5)</sup> For Mobile Tactical Operations Center: 1. Quantities represent separate Command &amp; Control &amp; Intelligence (C2I), Communications, Aircraft Interface, and Mobility/Facility component system upgrades of TacMobile systems. 2. TacMobile Tech Refresh 2.1.1 consists of refreshing 5 major components (made up of 14 individual subsystems) that range in cost from \$500K to \$1,350K. The Tech Refresh hardware composition is dependent upon the requirements of the site at the time of refresh. As an example, FY17 primarily procured High Frequency (HF) Communications equipment, FY18 added interface kits for Advanced Airborne Sensor (AAS) in addition to HF Communications, and FY19 will continue procurement of the AAS interface kits, and procure Joint Tactical Radio System (JTRS) receiver/transmitters to address line-of-sight Data Link (Link-16) obsolescence. 3. FY17 installs include components procured by PE 0204271N 2246 in FY16.</p> |                                                                            |                                                                                                         |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|----------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|------------------------------------------------------------------------------------------------------|--------------------|--------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                     |                                                                            |                      |                        |                |                | <b>Date:</b> February 2018                                                                           |                    |              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System |                    |              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                |                     |                                                                            |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                      |                    |              |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                         | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                       | <b>To Complete</b> | <b>Total</b> |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                    | -                  | -            |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.000              | 0.000          | 7.900          | 0.000               | 0.000                                                                      | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                                | 0.000              | 7.900        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                    | -                  | -            |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.000              | 0.000          | 7.900          | 0.000               | 0.000                                                                      | 0.000                | 0.000                  | 0.000          | 0.000          | 0.000                                                                                                | 0.000              | 7.900        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                    | -                  | -            |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>0.000</b>       | <b>0.000</b>   | <b>7.900</b>   | <b>0.000</b>        | <b>0.000</b>                                                               | <b>0.000</b>         | <b>0.000</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                         | <b>0.000</b>       | <b>7.900</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                     |                                                                            |                      |                        |                |                |                                                                                                      |                    |              |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                    | -                  | -            |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                                                    | -                  | -            |
| <b>Description:</b><br>Overseas Contingency Operation (OCO) funding Increase in FY18 procures an MTOC C4I gear set, and two US Battlefield Information Collection and Exploitation Systems (BICES), to support increased operations with Allied Forces. Global Force Management policies have increased for P-8A aircraft operations in EUCOM. This additional funding provides ability to conduct multi-site P-8A surveillance operations in USEUCOM Area of Responsibility to counter/monitor growing threats. The P-8A surveillance program ensures unfettered access of Sea-Lines of Communication and freedom of navigation for the United States and her Allies. Funding maximizes communications (C4I) and interoperability with Allied forces. |                    |                |                |                     |                                                                            |                      |                        |                |                |                                                                                                      |                    |              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                 |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                           |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10           |                                           |                                           |                                           | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems                 |                                           |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>3 / Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                    |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                                                                                      |                                           |                                           |  |
| <b>Models of Systems Affected:</b> MTOC                                                    |                                           |                                           |                                           | <b>Modification Type:</b> Tactical/Mobile (TacMobile) C4I Systems - End to End MTOC System |                                           |                                           |                                           | <b>Related RDT&amp;E PEs:</b>             |                                           |                                                                                                      |                                           |                                           |  |
| <b>Financial Plan</b>                                                                      | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                                                    | <b>FY 2019<br/>OCO</b>                    | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                                       | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                            | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                            | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                         |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <b>Modification Item 1 of 1:</b> Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| B Kits                                                                                     |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| Recurring                                                                                  |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| 1.1.1) OCO MTOC System - NonOrganic                                                        | - / -                                     | - / -                                     | 1 / 7.603                                 | - / -                                                                                      | - / -                                     | - / -                                     | - / -                                     | - / -                                     | - / -                                     | - / -                                                                                                | - / -                                     | 1 / 7.603                                 |  |
| <i>Subtotal: Recurring</i>                                                                 | <i>- / 0.000</i>                          | <i>- / -</i>                              | <i>- / 7.603</i>                          | <i>- / -</i>                                                                               | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / 0.000</i>                          | <i>- / 7.603</i>                          |  |
| <i>Subtotal: Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System</i>                 | <i>- / -</i>                              | <i>- / -</i>                              | <i>1 / 7.603</i>                          | <i>- / -</i>                                                                               | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / -</i>                              | <i>1 / 7.603</i>                          |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                       | <i>- / 0.000</i>                          | <i>- / -</i>                              | <i>- / 7.603</i>                          | <i>- / -</i>                                                                               | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / 0.000</i>                          | <i>- / 7.603</i>                          |  |
| <b>Installation</b>                                                                        |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <b>Modification Item 1 of 1:</b> Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System | - / 0.000                                 | - / 0.000                                 | - / 0.297                                 | - / 0.000                                                                                  | - / 0.000                                 | - / 0.000                                 | - / 0.000                                 | - / 0.000                                 | - / 0.000                                 | - / 0.000                                                                                            | - / 0.000                                 | - / 0.297                                 |  |
| <i>Subtotal: Installation</i>                                                              | <i>- / 0.000</i>                          | <i>- / -</i>                              | <i>- / 0.297</i>                          | <i>- / -</i>                                                                               | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / 0.000</i>                          | <i>- / 0.297</i>                          |  |
| <b>Total</b>                                                                               |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                   | <b>0.000</b>                              | <b>0.000</b>                              | <b>7.900</b>                              | <b>0.000</b>                                                                               | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                                                                                         | <b>0.000</b>                              | <b>7.900</b>                              |  |
|                                                                                            |                                           |                                           |                                           |                                                                                            |                                           |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |

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|--------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                 |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                 |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10           |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |           |                                |           |                                |                                            |                                |           |                                |           | <b>Modification Number / Title:</b><br>3 / Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                     |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Tactical/Mobile (TacMobile) C4I Systems - OCO MTOC System |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: SSC LANT                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Manufacturer Location: Charleston, SC      |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 7 |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                               |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                            |                                |           | <b>FY 2021</b>                 |           |                                                                                                      |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                             |            |                                |           |                                |           | Jan 2018                       |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                             |            |                                |           |                                |           | Aug 2018                       |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: OCO MTOC System     |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                         |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                            | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                       |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                             |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                       |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2017                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                    |            | - / -                          |           | - / -                          |           | 1 / 0.297                      |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | 0 / 0.000                      |           | 1 / 0.297      |           |           |           |           |            |
| FY 2019                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                      |            | - / -                          |           | - / -                          |           | 1 / 0.297                      |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                |           | - / -                          |           | 0 / 0.000                      |           | 1 / 0.297      |           |           |           |           |            |
| <b>Installation Schedule</b>                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                      |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                            | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                            |                                |           | <b>FY 2021</b>                 |           |                                                                                                      |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                            |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                  | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                  | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                            | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                         | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | 1                                                                          | -         | -                              | -         | -                              | -                                          | -                              | -         | -                              | -         | -                                                                                                    | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 1          |
| Out                                                                                        | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | 1                                                                          | -         | -                              | -         | -                              | -                                          | -                              | -         | -                              | -         | -                                                                                                    | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 1          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                           |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                      |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                       | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.000              | 0.000          | 0.000          | 11.000                                                                     | 0.000              | 11.000               | 0.600                  | 0.000          | 0.000          | 0.000                                                                                                | 0.000              | 11.600        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.000              | 0.000          | 0.000          | 11.000                                                                     | 0.000              | 11.000               | 0.600                  | 0.000          | 0.000          | 0.000                                                                                                | 0.000              | 11.600        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>11.000</b>                                                              | <b>0.000</b>       | <b>11.000</b>        | <b>0.600</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                         | <b>0.000</b>       | <b>11.600</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                      |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                    | -                  | -             |
| <b>Description:</b><br>Funding procures MTOC C4I gear sets to support increased operations with Allied Forces. Global Force Management policies have increased requirements for P-8 operations Worldwide. This funding provides ability to conduct multi-site P-8A surveillance operations to counter/monitor growing threats. The P-8A surveillance program ensures unfettered access of Sea Lines of Communication and freedom of navigation for the United States and her Allies. Funding maximizes communications (C4I) and inter-operability with Allied forces. |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                      |                    |               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                 |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           | <b>Date:</b> February 2018                                                                           |                                           |                                           |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10           |                                           |                                           |                                           |                                                                                     | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                                           |                                           |                                           |                                           | <b>Modification Number / Title:</b><br>4 / Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System |                                           |                                           |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                    |                                           |                                           |                                           |                                                                                     |                                                                            |                                           | <b>MDAP/MAIS Code:</b>                    |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <b>Models of Systems Affected:</b> MTOC                                                    |                                           |                                           |                                           | <b>Modification Type:</b> Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System |                                                                            |                                           |                                           | <b>Related RDT&amp;E PEs:</b>             |                                           |                                                                                                      |                                           |                                           |  |
| <b>Financial Plan</b>                                                                      | <b>Prior Years</b>                        | <b>FY 2017</b>                            | <b>FY 2018</b>                            | <b>FY 2019<br/>Base</b>                                                             | <b>FY 2019<br/>OCO</b>                                                     | <b>FY 2019<br/>Total</b>                  | <b>FY 2020</b>                            | <b>FY 2021</b>                            | <b>FY 2022</b>                            | <b>FY 2023</b>                                                                                       | <b>To<br/>Complete</b>                    | <b>Total</b>                              |  |
|                                                                                            | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                           | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                  | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i>                                                            | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> | <i>Qty (Each) /<br/>Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                                         |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| B Kits                                                                                     |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| Recurring                                                                                  |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| 1.1.1) TIO MTOC System - NonOrganic <sup>(6)</sup>                                         | - / -                                     | - / -                                     | - / -                                     | 2 / 11.000                                                                          | - / -                                                                      | 2 / 11.000                                | - / -                                     | - / -                                     | - / -                                     | - / -                                                                                                | - / -                                     | 2 / 11.000                                |  |
| <i>Subtotal: Recurring</i>                                                                 | <i>- / 0.000</i>                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / 11.000</i>                                                                   | <i>- / -</i>                                                               | <i>- / 11.000</i>                         | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / 0.000</i>                          | <i>- / 11.000</i>                         |  |
| <i>Subtotal: Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System</i>                 | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>2 / 11.000</i>                                                                   | <i>- / -</i>                                                               | <i>2 / 11.000</i>                         | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / -</i>                              | <i>2 / 11.000</i>                         |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                       | <i>- / 0.000</i>                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / 11.000</i>                                                                   | <i>- / -</i>                                                               | <i>- / 11.000</i>                         | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / 0.000</i>                          | <i>- / 11.000</i>                         |  |
| <b>Installation</b>                                                                        |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <i>Modification Item 1 of 1:</i> Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                                                                    | <i>- / 0.000</i>                                                           | <i>- / 0.000</i>                          | <i>- / 0.600</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                          | <i>- / 0.000</i>                                                                                     | <i>- / 0.000</i>                          | <i>- / 0.600</i>                          |  |
| <i>Subtotal: Installation</i>                                                              | <i>- / 0.000</i>                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                        | <i>- / -</i>                                                               | <i>- / -</i>                              | <i>- / 0.600</i>                          | <i>- / -</i>                              | <i>- / -</i>                              | <i>- / -</i>                                                                                         | <i>- / 0.000</i>                          | <i>- / 0.600</i>                          |  |
| <b>Total</b>                                                                               |                                           |                                           |                                           |                                                                                     |                                                                            |                                           |                                           |                                           |                                           |                                                                                                      |                                           |                                           |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                   | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>11.000</b>                                                                       | <b>0.000</b>                                                               | <b>11.000</b>                             | <b>0.600</b>                              | <b>0.000</b>                              | <b>0.000</b>                              | <b>0.000</b>                                                                                         | <b>0.000</b>                              | <b>11.600</b>                             |  |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                           |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems | <b>Modification Number / Title:</b><br>4 / Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System

**Manufacturer Information**

|                                        |                |                |                |                                       |                |                |                |
|----------------------------------------|----------------|----------------|----------------|---------------------------------------|----------------|----------------|----------------|
| Manufacturer Name: SSC LANT            |                |                |                | Manufacturer Location: Charleston, SC |                |                |                |
| Administrative Leadtime (in Months): 3 |                |                |                | Production Leadtime (in Months): 7    |                |                |                |
| <b>Dates</b>                           | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b>                        | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
| Contract Dates                         |                |                | Jan 2019       |                                       |                |                |                |
| Delivery Dates                         |                |                | Aug 2019       |                                       |                |                |                |

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: TacMobile C4I Systems TIO MTOC

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.600                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.600                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 0.600                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.600                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 1  | 1  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 2   |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 1  | 1  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 2   |

**Footnotes:**

<sup>(6)</sup> Funding Increase in FY19 procures two additional MTOC C4I gear sets for Mobile Tactical Operations Center Manning/Training/Equipping efforts in support of increased worldwide Maritime Patrol and Reconnaissance Force operations. Nine currently operational MTOCS were procured back in the mid-1990's to support P-3 operations. As the P-8A aircraft replaced the P-3, and operations increased worldwide, it was realized that additional MTOCS are required in order to effectively conduct multi-site P-8A surveillance operations to counter/monitor growing threats. FY18 OCO funding procured the 10th

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | <b>Date:</b> February 2018                                                                           |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems | <b>Modification Number / Title:</b><br>4 / Tactical/Mobile (TacMobile) C4I Systems - TIO MTOC System |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                            | <b>MDAP/MAIS Code:</b>                                                                               |
| <p>MTOC C4I gear set. FY19 funding is for the eleventh and twelfth procurements which completes the Inventory Objective for MTOC gear sets and adequately supports P-8A surveillance efforts ensuring unfettered access of Sea-Lines of Communication and freedom of navigation for the United States and her Allies. FY19 procurement requirement to achieve TIO does not include United States Battlefield Information Collection and Exploitation Systems nor Expeditionary Facilities Equipment, which are not required to meet this requirement.</p> |                                                                            |                                                                                                      |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                              |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>5 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                         |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                          | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.000              | 0.000          | 0.000          | 15.747                                                                     | 0.000              | 15.747               | 11.858                 | 17.191         | 2.500          | 0.000                                                                                                   | 0.000              | 47.296        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.000              | 0.000          | 0.000          | 15.747                                                                     | 0.000              | 15.747               | 11.858                 | 17.191         | 2.500          | 0.000                                                                                                   | 0.000              | 47.296        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>15.747</b>                                                              | <b>0.000</b>       | <b>15.747</b>        | <b>11.858</b>          | <b>17.191</b>  | <b>2.500</b>   | <b>0.000</b>                                                                                            | <b>0.000</b>       | <b>47.296</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                         |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                                       | -                  | -             |
| <b>Description:</b><br>Technical Refresh of Command and Control, Networking and Communications systems necessary to maintain support Maritime Patrol Family of Systems aircraft operations. Includes: Network modernization to maintain Cyber Security posture; Communications refresh and modernization; Sensor analysis, mission planning, and in-flight mission support capabilities, avionics and weapons system interfaces modernization necessary to support P-8A Operations |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                                         |                    |               |

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|-----------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                    |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                              |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10              |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>5 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                       |                                |                                |                                |                                                                            |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                                         |                                |                                |  |
| <b>Models of Systems Affected:</b> Various                                                    |                                |                                |                                | <b>Modification Type:</b> Tech Refresh 2.1.2                               |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                                         |                                |                                |  |
| <b>Financial Plan</b>                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                          | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                            |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| B Kits                                                                                        |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| Recurring                                                                                     |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| 1.1.1) TOC - NonOrganic <sup>(7)</sup>                                                        | - / -                          | - / -                          | - / -                          | 2 / 4.382                                                                  | - / -                          | 2 / 4.382                      | 2 / 4.388                      | 2 / 4.387                      | - / -                          | - / -                                                                                                   | - / -                          | 6 / 13.157                     |  |
| 1.1.2) MTOC - NonOrganic <sup>(8)</sup>                                                       | - / -                          | - / -                          | - / -                          | 5 / 10.665                                                                 | - / -                          | 5 / 10.665                     | 2 / 4.271                      | 5 / 10.676                     | - / -                          | - / -                                                                                                   | - / -                          | 12 / 25.612                    |  |
| <i>Subtotal: Recurring</i>                                                                    | - / 0.000                      | - / -                          | - / -                          | - / 15.047                                                                 | - / -                          | - / 15.047                     | - / 8.659                      | - / 15.063                     | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 38.769                     |  |
| <i>Subtotal: Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2</i>                 | - / -                          | - / -                          | - / -                          | 7 / 15.047                                                                 | - / -                          | 7 / 15.047                     | 4 / 8.659                      | 7 / 15.063                     | - / -                          | - / -                                                                                                   | - / -                          | 18 / 38.769                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                          | - / 0.000                      | - / -                          | - / -                          | - / 15.047                                                                 | - / -                          | - / 15.047                     | - / 8.659                      | - / 15.063                     | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 38.769                     |  |
| <b>Support (All Modification Items)</b>                                                       |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| 2.1) Shore Pre-Installation Design <sup>(9)</sup>                                             | - / -                          | - / -                          | - / -                          | - / 0.700                                                                  | - / -                          | - / 0.700                      | - / 0.700                      | - / 0.700                      | - / -                          | - / -                                                                                                   | - / -                          | - / 2.100                      |  |
| <i>Subtotal: Support</i>                                                                      | - / 0.000                      | - / -                          | - / -                          | - / 0.700                                                                  | - / -                          | - / 0.700                      | - / 0.700                      | - / 0.700                      | - / -                          | - / -                                                                                                   | - / 0.000                      | - / 2.100                      |  |
| <b>Installation</b>                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                  | - / 0.000                      | - / 0.000                      | - / 2.499                      | - / 1.428                      | - / 2.500                      | - / 0.000                                                                                               | - / 0.000                      | - / 6.427                      |  |
| <i>Subtotal: Installation</i>                                                                 | - / 0.000                      | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / 2.499                      | - / 1.428                      | - / 2.500                      | - / -                                                                                                   | - / 0.000                      | - / 6.427                      |  |
| <b>Total</b>                                                                                  |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                                         |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                      | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>15.747</b>                                                              | <b>0.000</b>                   | <b>15.747</b>                  | <b>11.858</b>                  | <b>17.191</b>                  | <b>2.500</b>                   | <b>0.000</b>                                                                                            | <b>0.000</b>                   | <b>47.296</b>                  |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems | <b>Modification Number / Title:</b><br>5 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 |

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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2

**Manufacturer Information**

|                                        |                |                |                |                                       |                |                |                |
|----------------------------------------|----------------|----------------|----------------|---------------------------------------|----------------|----------------|----------------|
| Manufacturer Name: SSC LANT            |                |                |                | Manufacturer Location: Charleston, SC |                |                |                |
| Administrative Leadtime (in Months): 3 |                |                |                | Production Leadtime (in Months): 7    |                |                |                |
| <b>Dates</b>                           | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b>                        | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b> |
| Contract Dates                         |                |                | Jan 2019       |                                       |                |                |                |
| Delivery Dates                         |                |                | Aug 2019       |                                       |                |                |                |

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: TacMobile C4I Systems Technical Refresh 2.1.2

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 2.499                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 7 / 2.499                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 4 / 1.428                      | - / -                          | - / -                          | 0 / 0.000                      | 4 / 1.428                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 2.500                      | - / -                          | 0 / 0.000                      | 7 / 2.500                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 7 / 2.499                      | 4 / 1.428                      | 7 / 2.500                      | - / -                          | 0 / 0.000                      | 18 / 6.427                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 3  | 2  | 2  | -       | 2  | 1  | 1  | -       | 3  | 2  | 2  | -       | -  | -  | -  | -  | 18  |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 2  | 3  | 2  | -       | 1  | 2  | 1  | -       | 2  | 3  | 2  | -       | -  | -  | -  | -  | 18  |

**Footnotes:**

<sup>(7)</sup> TacMobile quantities represent number of sites. Each site is comprised of up to 23 subsystems. Unit and installation costs vary based upon the specific subsystems technically refreshed from year to year. There is a 4-month integration period at SSC Lant after receipt of production items.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | <b>Date:</b> February 2018                                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                          | <b>P-1 Line Item Number / Title:</b><br>2906 / Tactical/Mobile C4I Systems | <b>Modification Number / Title:</b><br>5 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.2 |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                            | <b>MDAP/MAIS Code:</b>                                                                                  |
| <p><sup>(8)</sup> TacMobile quantities represent number of sites. Each site is comprised of up to 23 subsystems. Unit and installation costs vary based upon the specific subsystems technically refreshed from year to year. There is a 4-month integration period at SSC Lant after receipt of production items.</p> <p><sup>(9)</sup> Unit and installation costs vary based upon the specific subsystems technically refreshed from year to year.</p> |                                                                            |                                                                                                         |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |
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|                                                          |                                               |                                                 |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0305208N |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|

**Line Item MDAP/MAIS Code:** 000

| Resource Summary                                          | Prior Years    | FY 2017       | FY 2018       | FY 2019 Base  | FY 2019 OCO  | FY 2019 Total | FY 2020       | FY 2021       | FY 2022       | FY 2023       | To Complete    | Total          |
|-----------------------------------------------------------|----------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| Procurement Quantity ( <i>Units in Each</i> )             | -              | -             | -             | -             | -            | -             | -             | -             | -             | -             | -              | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )        | 239.446        | 23.610        | 20.182        | 12.896        | 0.000        | 12.896        | 20.733        | 20.876        | 14.895        | 25.692        | 234.735        | 613.065        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )     | -              | -             | -             | -             | -            | -             | -             | -             | -             | -             | -              | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )           | 239.446        | 23.610        | 20.182        | 12.896        | 0.000        | 12.896        | 20.733        | 20.876        | 14.895        | 25.692        | 234.735        | 613.065        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )     | -              | -             | -             | -             | -            | -             | -             | -             | -             | -             | -              | -              |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b> | <b>239.446</b> | <b>23.610</b> | <b>20.182</b> | <b>12.896</b> | <b>0.000</b> | <b>12.896</b> | <b>20.733</b> | <b>20.876</b> | <b>14.895</b> | <b>25.692</b> | <b>234.735</b> | <b>613.065</b> |

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

|                                                          |   |       |       |       |   |       |       |       |       |   |   |       |
|----------------------------------------------------------|---|-------|-------|-------|---|-------|-------|-------|-------|---|---|-------|
| Initial Spares ( <i>\$ in Millions</i> )                 | - | 0.403 | 0.511 | 0.157 | - | 0.157 | 0.154 | 0.731 | 0.464 | - | - | 2.420 |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )             | - | -     | -     | -     | - | -     | -     | -     | -     | - | - | -     |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> ) | - | -     | -     | -     | - | -     | -     | -     | -     | - | - | -     |

## Description:

The Distributed Common Ground System - Navy (DCGS-N) is the Navy's portion of the Under Secretary of Defense, Intelligence (USD (I)) DCGS Family of Systems (FoS). The Department of Defense (DoD) has defined a DCGS architecture that will be compatible and interoperable across all of the Services' Intelligence, Surveillance and Reconnaissance (ISR) systems and operations. DCGS accesses and ingests data from spaceborne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers. This collected data is shared across a Joint enterprise using the DCGS Integration Backbone (DIB) and in time, the Defense Intelligence Information Enterprise (DI2E) to enhance access and sharing of ISR information across Joint forces through the use of common enterprise standards and services. DCGS FoS supports Joint Task Force (JTF)-level and below combat operations with critical intelligence for battle management and information dominance across the full spectrum of operations, including peace, conflict, war, and Overseas Contingency Operations (OCO). DCGS is a cooperative effort between the services, agencies, and DoD to provide systems capable of receiving, processing, exploiting, and disseminating data from airborne and national reconnaissance platforms. DCGS-N core components include the analyst workstation from the Global Command and Control System (GCCS) - Integrated Imagery and Intelligence (I3), Generic Area Limitation Environment (GALE) Signals Intelligence (SIGINT), Common Geo-positioning Services (CGS), Image Product Library (IPL) or Information Store (iSToRE), Modernized Integrated Database (MIDB), Joint Concentrator Architecture (JCA) and Track Management Services (TMS).

The DCGS-N system represents the integration of 1) The processing and exploitation of tactical and Imagery Intelligence (IMINT) and SIGINT; 2) Precision target geopositioning, mensuration, and imagery dissemination capabilities; 3) Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); and 4) Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) and Command and Control information via DIB, DI2E, and Net-Centric Enterprise Services (NCES) standards with a wide range of customers (e.g., Global Command and Control System - Maritime (GCCS-M), Joint Mission Planning System (JMPS), and many others).

The DCGS-N Enterprise Node (DEN), which incorporates current DIB standards and DI2E policy, facilitates interoperability and data sharing among the DCGS FoS. DCGS-N ensures compliance with the DoD DCGS network architecture.

The Navy is establishing an ISR Enterprise way ahead that will emphasize a reach back strategy to provide intelligence products to support deployed ship and shore operations. The Navy will also migrate to a Service Oriented Architecture (SOA) that requires the integration and testing of a Maritime ISR Enterprise capabilities, migration of ISR applications to a SOA environment, and integration to leverage a Common Computing Environment (CCE) and the Intelligence Community Information Technology Enterprise (IC ITE). DCGS-N will also become the focal point for migration of Maritime Domain Awareness (MDA) fusion and analysis Maritime Fusion & Analysis (MFAS) tool applications for the Navy. Additionally, Intelligence Surveillance and Reconnaissance (ISR) funding supports development and integration efforts to fuse Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) data collected, exploited and disseminated by ISR systems with other intelligence data and automatically provide to shipboard combat systems

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        | Date: February 2018                                                                    |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        | P-1 Line Item Number / Title:<br>2914 / Distributed Common Ground System-Navy (DCGS-N) |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Program Elements for Code B Items: N/A | Other Related Program Elements: 0305208N                                               |
| Line Item MDAP/MAIS Code: 000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |                                                                                        |
| to support kinetic and non-kinetic fires and more effective exploitation of the electromagnetic spectrum. ISR systems will play key roles in enabling the national-to-tactical integration necessary for an integrated maritime targeting capability in support of kinetic and non-kinetic fires.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |                                                                                        |
| Distributed Common Ground System-Navy (DCGS-N) Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new ISR platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities and integrate TCPED capabilities to improve the use and analysis of sensor and platform data. DCGS-N Increment 2 will be based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases. The first release provides an enhanced Navy Intelligence, Surveillance and Reconnaissance (ISR) enterprise that converges and builds on the DCGS-N Increment 1 and MDA Enterprise Nodes; leverages the Defense Intelligence Information Enterprise (DI2E); is compliant with the Common Computing Environment (CCE) and the Community Information Technology Enterprise (IC ITE); federates ISR and TCPED workflow and production improving throughout the automation; exploits new and evolving unmanned systems sensor data; provides Multi-Intelligence (Multi-INT) cross-queuing and modular tools. The second release enhances afloat ISR capabilities by providing a set of software centric tools providing Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed to operate in disconnected or denied communications environment. Follow-on releases will be developed based on Fleet requirements. |                                        |                                                                                        |
| Intelligence Carry-On Program (ICOP) is a suite of multi-source intelligence and analytical capabilities which includes an integrated Three-Dimensional (3-D) operational picture displaying intelligence and other data sources to provide a richer and more complete picture of the battle space on Unit Level platforms. The system supports a full motion video capability that receives, processes, exploits, and disseminates organic and non-organic data as well as the ability to process and correlate Electronic Intelligence (ELINT) and external Communications Intelligence (COMINT Externals). It integrates mature Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) applications with shared storage and communication paths to reach back to the DCGS-N Enterprise Node (DEN), and it provides data sharing to the Maritime Operations Centers (MOC) and national ISR systems, making tactical users a part of the larger ISR enterprise.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |                                                                                        |
| ICOP is subset to DCGS-N capabilities for Unit Level platforms. DCGS-N only fields on Force Level platforms. There are currently Unit Level platforms identified to receive permanent ICOP Partial or Full Foundation Kit installations. ICOP Foundation Kits include all cabling and mounting plate foundations for antennas and ICOP workstations. The Unit Level platforms will pull from a ICOP workstation or ICOP workstation and Communications Module 3s (CM3s) System rotatable pool based on deployment. ICOP fielding strategy requires both partial foundation kit and ICOP workstations without CM3s or ICOP workstations, (2) CM3s and full foundation kits based on fleet prioritization. Unit level platforms include cruisers (CG), destroyers (DDG), and amphibious transport docks (LPD-17) platforms. Crypto Modifications (Mods) were added to the CM3 production unit end item in FY16 to meet the new mandate for Type 1 Encryption transmission of sensor data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                        |
| DCGS-N Increment 1 Product Improvement includes DCGS-N Fleet Introductory Training and training equipment, DCGS-N hardware and software technical refresh, ancillary equipment and upgrades to extend service life and provide the fleet imagery intelligence capability. Equipment support includes the assembly and integration associated with the product improvements or modification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                        |                                                                                        |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                       |                    |                                               |                       |                                              |                                                                                               |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                     |                                                                       |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                       |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> 0305208N                                               |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> 000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                       |                    |                                               |                       |                                              |                                                                                               |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                       |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                                | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Title*</b>                                                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                                  | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1 / ICOP                                                              | P-5a               |                                               |                       | - / 30.625                                   | - / 12.000                                                                                    | - / 6.392                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2 / 2914 Distributed Common Ground System - Navy (DCGS-N) Prior Years |                    |                                               |                       | - / 133.167                                  | - / 0.000                                                                                     | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1 / PRODUCT IMPROVEMENT Afloat (Tech Refresh/Upgrade)                 |                    |                                               |                       | - / 65.235                                   | - / 4.309                                                                                     | - / 8.415                                    | - / 10.054                                   | - / 0.000                                    | - / 10.054                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 / PRODUCT IMPROVEMENT Ashore (Tech Refresh/Upgrades)                |                    |                                               |                       | - / 10.419                                   | - / 7.301                                                                                     | - / 5.375                                    | - / 2.662                                    | - / 0.000                                    | - / 2.662                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3 / DCGS-N INCREMENT 2 Afloat (New Model)                             |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                                     | - / 0.000                                    | - / 0.180                                    | - / 0.000                                    | - / 0.180                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4 / DCGS-N INCREMENT 2 Ashore (New Model)                             |                    |                                               |                       | - / 0.000                                    | - / 0.000                                                                                     | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Total Gross/Weapon System Cost</b>                                 |                    |                                               |                       | <b>- / 239.446</b>                           | <b>- / 23.610</b>                                                                             | <b>- / 20.182</b>                            | <b>- / 12.896</b>                            | <b>- / 0.000</b>                             | <b>- / 12.896</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                       |                    |                                               |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                                                | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Title*</b>                                                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                                  | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1 / ICOP                                                              | P-5a               |                                               |                       | - / -                                        | - / -                                                                                         | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2 / 2914 Distributed Common Ground System - Navy (DCGS-N) Prior Years |                    |                                               |                       | - / -                                        | - / -                                                                                         | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1 / PRODUCT IMPROVEMENT Afloat (Tech Refresh/Upgrade)                 |                    |                                               |                       | - / 8.744                                    | - / 0.306                                                                                     | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 97.063                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 / PRODUCT IMPROVEMENT Ashore (Tech Refresh/Upgrades)                |                    |                                               |                       | - / 0.940                                    | - / 0.000                                                                                     | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 26.697                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3 / DCGS-N INCREMENT 2 Afloat (New Model)                             |                    |                                               |                       | - / 7.929                                    | - / 10.309                                                                                    | - / 13.952                                   | - / 13.359                                   | - / 232.167                                  | - / 277.896                                  |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4 / DCGS-N INCREMENT 2 Ashore (New Model)                             |                    |                                               |                       | - / 3.120                                    | - / 10.261                                                                                    | - / 0.943                                    | - / 12.333                                   | - / 0.000                                    | - / 26.657                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Total Gross/Weapon System Cost</b>                                 |                    |                                               |                       | <b>- / 20.733</b>                            | <b>- / 20.876</b>                                                                             | <b>- / 14.895</b>                            | <b>- / 25.692</b>                            | <b>- / 234.735</b>                           | <b>- / 613.065</b>                           |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                                                                                                                                                                                                                                                                                                                                                       |                                                                       |                    |                                               |                       |                                              |                                                                                               |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                       |                    |                                               |                       |                                              |                                                                                               |                                              |                                              |                                              |                                              |
| <b>Justification:</b><br>DCGS-N Increment 1 planned procurements in FY19 include (10) DCGS-N Increment 1 technical refreshes that consist of (1) 2-rack Ashore technical refreshes, (7) 2-rack Afloat technical refreshes, (1) End-of-Life Afloat Hardware Upgrade and (1) End-of-Life Ashore Hardware Upgrades. These DCGS-N installations will replace the currently fielded legacy systems and leverage the Navy's Common Computing Environment (CCE) as applicable as well as provide upgrades to extend service life. |                                                                       |                    |                                               |                       |                                              |                                                                                               |                                              |                                              |                                              |                                              |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      | Date: February 2018                      |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                                                              |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>2914 / Distributed Common Ground System-Navy (DCGS-N) |               |                      |                     |               |                      | Item Number / Title [DODIC]:<br>1 / ICOP |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                      |                                                                                        |               |                      | MDAP/MAIS Code:     |               |                      |                                          |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017              |                                                                                        | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO          |                                          | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                    |                                                                                        | -             |                      | -                   |               | -                    |                                          | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 30.625              |               | 12.000               |                                                                                        | 6.392         |                      | 0.000               |               | 0.000                |                                          | 0.000         |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                    |                                                                                        | -             |                      | -                   |               | -                    |                                          | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 30.625              |               | 12.000               |                                                                                        | 6.392         |                      | 0.000               |               | 0.000                |                                          | 0.000         |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                    |                                                                                        | -             |                      | -                   |               | -                    |                                          | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 30.625              |               | 12.000               |                                                                                        | 6.392         |                      | 0.000               |               | 0.000                |                                          | 0.000         |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | -                    |                                                                                        | -             |                      | -                   |               | -                    |                                          | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                    |                                                                                        | -             |                      | -                   |               | -                    |                                          | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                                                |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO                              |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                                    | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                      | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - ICOP Cost                                                                                                                   |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| 1.1.1) ICOP Foundation Kit Procurement <sup>(†)</sup>                                                                                  | 31.923              | 52            | 1.660                | 27.000              | 30            | 0.810                | 55.000                                                                                 | 7             | 0.385                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| 1.1.2) ICOP System Procurement <sup>(†)</sup>                                                                                          | 223.115             | 61            | 13.610               | 490.000             | 8             | 3.920                | 490.000                                                                                | 4             | 1.960                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| 1.1.3) CM3 Set Procurements <sup>(†)</sup>                                                                                             | -                   | -             | 0.000                | -                   | -             | 0.000                | 440.000                                                                                | 3             | 1.320                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 15.270               | -                   | -             | 4.730                | -                                                                                      | -             | 3.665                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - ICOP Cost                                                                                                         | -                   | -             | 15.270               | -                   | -             | 4.730                | -                                                                                      | -             | 3.665                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| Hardware - INSTALLATIONS Cost                                                                                                          |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| 2.1.1) ICOP Foundation Kit Installation Afloat                                                                                         | -                   | -             | 11.090               | -                   | -             | 6.243                | -                                                                                      | -             | 2.174                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 11.090               | -                   | -             | 6.243                | -                                                                                      | -             | 2.174                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - INSTALLATIONS Cost                                                                                                | -                   | -             | 11.090               | -                   | -             | 6.243                | -                                                                                      | -             | 2.174                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| Support Cost                                                                                                                           |                     |               |                      |                     |               |                      |                                                                                        |               |                      |                     |               |                      |                                          |               |                      |                     |               |                      |
| 3.1) ICOP Foundation Kit Production Support                                                                                            | -                   | -             | 0.134                | -                   | -             | 0.052                | -                                                                                      | -             | 0.025                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |
| 3.2) ICOP System Production Support                                                                                                    | -                   | -             | 0.885                | -                   | -             | 0.255                | -                                                                                      | -             | 0.213                | -                   | -             | 0.000                | -                                        | -             | 0.000                | -                   | -             | 0.000                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |               |                      |                     |               |                                                                                        |                     |               |                      |                     |               | Date: February 2018                      |                     |               |                      |                     |               |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / ICOP |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |               |                      |                     |               |                                                                                        |                     |               |                      | MDAP/MAIS Code:     |               |                                          |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |               |                      |                     |               |                                                                                        |                     |               |                      |                     |               |                                          |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Prior Years         |               |                      | FY 2017             |               |                                                                                        | FY 2018             |               |                      | FY 2019 Base        |               |                                          | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 3.3) ICOP Foundation Kit DSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                   | -             | 3.246                | -                   | -             | 0.720                                                                                  | -                   | -             | 0.315                | -                   | -             | 0.000                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Support Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                   | -             | 4.265                | -                   | -             | 1.027                                                                                  | -                   | -             | 0.553                | -                   | -             | 0.000                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                   | -             | 30.625               | -                   | -             | 12.000                                                                                 | -                   | -             | 6.392                | -                   | -             | 0.000                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Remarks:<br>Intelligence Carry-On Program (ICOP) is a suite of multi-source intelligence and analytical capabilities which includes an integrated Three-Dimensional (3-D) operational picture displaying intelligence and other data sources to provide a richer and more complete picture of the battle space on Unit Level platforms. The system supports a full motion video capability that receives, processes, exploits, and disseminates organic and non-organic data as well as the ability to process and correlate Electronic Intelligence (ELINT) and external Communications Intelligence (COMINT Externals). It integrates a menu of mature Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) applications with shared storage and communication paths to reach back to the DCGS-N Enterprise Node (DEN), and to provide data sharing to the Maritime Operations Centers (MOC) and national Intelligence, Surveillance and Reconnaissance (ISR) systems, making tactical users a part of the larger ISR enterprise. |                     |               |                      |                     |               |                                                                                        |                     |               |                      |                     |               |                                          |                     |               |                      |                     |               |                      |
| (†) indicates the presence of a P-5a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |               |                      |                     |               |                                                                                        |                     |               |                      |                     |               |                                          |                     |               |                      |                     |               |                      |

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |                      |           |                                |                                                                                               |                        |                       |                                       |                       | <b>Date:</b> February 2018                      |                                 |                                        |                           |
|----------------------------------------------------------------------------------|----------------------|-----------|--------------------------------|-----------------------------------------------------------------------------------------------|------------------------|-----------------------|---------------------------------------|-----------------------|-------------------------------------------------|---------------------------------|----------------------------------------|---------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                      |           |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                        |                       |                                       |                       | <b>Item Number / Title [DODIC]:</b><br>1 / ICOP |                                 |                                        |                           |
| <b>Cost Elements</b>                                                             | <b>O<br/>C<br/>O</b> | <b>FY</b> | <b>Contractor and Location</b> | <b>Method/Type<br/>or<br/>Funding Vehicle</b>                                                 | <b>Location of PCO</b> | <b>Award<br/>Date</b> | <b>Date<br/>of First<br/>Delivery</b> | <b>Qty<br/>(Each)</b> | <b>Unit Cost<br/>(\$ K)</b>                     | <b>Specs<br/>Avail<br/>Now?</b> | <b>Date<br/>Revision<br/>Available</b> | <b>RFP Issue<br/>Date</b> |
| 1.1.1) ICOP Foundation Kit Procurement                                           | ✓                    | 2017      | BAE Systems / San Diego, CA    | C / FFP                                                                                       | San Diego              | Jun 2017              | Jul 2017                              | 30                    | 27.000                                          | Y                               |                                        |                           |
| 1.1.1) ICOP Foundation Kit Procurement                                           | ✓                    | 2018      | BAE Systems / San Diego, CA    | C / FFP                                                                                       | San Diego              | Oct 2017              | Nov 2017                              | 7                     | 55.000                                          | Y                               |                                        |                           |
| 1.1.2) ICOP System Procurement                                                   | ✓                    | 2017      | BAE Systems / San Diego, CA    | C / FFP                                                                                       | San Diego              | Jun 2017              | Sep 2017                              | 8                     | 490.000                                         | Y                               |                                        |                           |
| 1.1.2) ICOP System Procurement                                                   | ✓                    | 2018      | BAE Systems / San Diego, CA    | C / FFP                                                                                       | San Diego              | Oct 2017              | Jan 2018                              | 4                     | 490.000                                         | Y                               |                                        |                           |
| 1.1.3) CM3 Set Procurements                                                      | ✓                    | 2018      | BAE Systems / San Diego, CA    | C / FFP                                                                                       | San Diego              | Oct 2017              | Jan 2018                              | 3                     | 440.000                                         | Y                               |                                        |                           |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|------------|-------------------|------------------|----------------------------------------------------------------------------------------|-------------------|------------------|------------|-------------------|---------------------|-------------------------------------------------------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                            |  |                  |            |                   |                  |                                                                                        |                   |                  |            |                   | Date: February 2018 |                                                                                                       |                   |                  |            |                   |                  |            |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                           |  |                  |            |                   |                  | P-1 Line Item Number / Title:<br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                   |                  |            |                   |                     | Item Number / Title [DODIC]:<br>2 / 2914 Distributed Common Ground System - Navy (DCGS-N) Prior Years |                   |                  |            |                   |                  |            |                   |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                    |  |                  |            |                   |                  |                                                                                        |                   |                  |            | MDAP/MAIS Code:   |                     |                                                                                                       |                   |                  |            |                   |                  |            |                   |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                    |  |                  |            | Prior Years       |                  | FY 2017                                                                                |                   | FY 2018          |            | FY 2019 Base      |                     | FY 2019 OCO                                                                                           |                   | FY 2019 Total    |            |                   |                  |            |                   |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                |  |                  |            | -                 |                  | -                                                                                      |                   | -                |            | -                 |                     | -                                                                                                     |                   | -                |            |                   |                  |            |                   |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                           |  |                  |            | 133.167           |                  | 0.000                                                                                  |                   | 0.000            |            | 0.000             |                     | 0.000                                                                                                 |                   | 0.000            |            |                   |                  |            |                   |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                        |  |                  |            | -                 |                  | -                                                                                      |                   | -                |            | -                 |                     | -                                                                                                     |                   | -                |            |                   |                  |            |                   |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                              |  |                  |            | 133.167           |                  | 0.000                                                                                  |                   | 0.000            |            | 0.000             |                     | 0.000                                                                                                 |                   | 0.000            |            |                   |                  |            |                   |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                        |  |                  |            | -                 |                  | -                                                                                      |                   | -                |            | -                 |                     | -                                                                                                     |                   | -                |            |                   |                  |            |                   |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                         |  |                  |            | 133.167           |                  | 0.000                                                                                  |                   | 0.000            |            | 0.000             |                     | 0.000                                                                                                 |                   | 0.000            |            |                   |                  |            |                   |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                              |  |                  |            |                   |                  |                                                                                        |                   |                  |            |                   |                     |                                                                                                       |                   |                  |            |                   |                  |            |                   |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                     |  |                  |            | -                 |                  | -                                                                                      |                   | -                |            | -                 |                     | -                                                                                                     |                   | -                |            |                   |                  |            |                   |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                     |  |                  |            | -                 |                  | -                                                                                      |                   | -                |            | -                 |                     | -                                                                                                     |                   | -                |            |                   |                  |            |                   |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                      |  |                  |            |                   |                  |                                                                                        |                   |                  |            |                   |                     |                                                                                                       |                   |                  |            |                   |                  |            |                   |
| Cost Elements                                                                                                                                                                                                                                                                                                                                                                                                       |  | Prior Years      |            |                   | FY 2017          |                                                                                        |                   | FY 2018          |            |                   | FY 2019 Base        |                                                                                                       |                   | FY 2019 OCO      |            |                   | FY 2019 Total    |            |                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                     |  | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each)                                                                             | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)    | Qty (Each)                                                                                            | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Hardware - 2914 DCGS-N Prior Year Cost                                                                                                                                                                                                                                                                                                                                                                              |  |                  |            |                   |                  |                                                                                        |                   |                  |            |                   |                     |                                                                                                       |                   |                  |            |                   |                  |            |                   |
| Recurring Cost                                                                                                                                                                                                                                                                                                                                                                                                      |  |                  |            |                   |                  |                                                                                        |                   |                  |            |                   |                     |                                                                                                       |                   |                  |            |                   |                  |            |                   |
| 1.1.1) JSIPS-N Product Improvement Prior Years                                                                                                                                                                                                                                                                                                                                                                      |  | 1,764.000        | 23         | 40.572            | -                | -                                                                                      | 0.000             | -                | -          | 0.000             | -                   | -                                                                                                     | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |
| 1.1.2) DCGS-N Increment 1 Initial FRP Systems Prior Years                                                                                                                                                                                                                                                                                                                                                           |  | 3,086.500        | 30         | 92.595            | -                | -                                                                                      | 0.000             | -                | -          | 0.000             | -                   | -                                                                                                     | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |
| Subtotal: Recurring Cost                                                                                                                                                                                                                                                                                                                                                                                            |  | -                | -          | 133.167           | -                | -                                                                                      | 0.000             | -                | -          | 0.000             | -                   | -                                                                                                     | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |
| Subtotal: Hardware - 2914 DCGS-N Prior Year Cost                                                                                                                                                                                                                                                                                                                                                                    |  | -                | -          | 133.167           | -                | -                                                                                      | 0.000             | -                | -          | 0.000             | -                   | -                                                                                                     | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                                                                                                                                                            |  | -                | -          | 133.167           | -                | -                                                                                      | 0.000             | -                | -          | 0.000             | -                   | -                                                                                                     | 0.000             | -                | -          | 0.000             | -                | -          | 0.000             |
| Remarks:<br>Includes prior year funding for 2914 Distributed Common Ground System - Navy (DCGS-N) to include Joint Services Imagery Processing System - Navy (JSIPS-N) and Distributed Common Ground System - Navy (DCGS-N) Increment 1 Ashore and Afloat initial Full Rate Production (FRP) Systems. Includes both procurement and installation cost. P3As are no longer shown because funding is prior year only. |  |                  |            |                   |                  |                                                                                        |                   |                  |            |                   |                     |                                                                                                       |                   |                  |            |                   |                  |            |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                                               |  | <b>Date:</b> February 2018 |  |                                                                       |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |  |                            |  | <b>Modification Number / Title:</b><br>1 / PRODUCT IMPROVEMENT Afloat |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 65.235      | 4.309   | 8.415   | 10.054       | 0.000       | 10.054          | 8.744   | 0.306   | 0.000   | 0.000   | 0.000       | 97.063 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 65.235      | 4.309   | 8.415   | 10.054       | 0.000       | 10.054          | 8.744   | 0.306   | 0.000   | 0.000   | 0.000       | 97.063 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 65.235      | 4.309   | 8.415   | 10.054       | 0.000       | 10.054          | 8.744   | 0.306   | 0.000   | 0.000   | 0.000       | 97.063 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Tech Refresh/Upgrade integration procures Commerical Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and unsupportable equipment for the Distributed Common Ground System-Navy (DCGS-N) program for the processing and exploitation of tactical and Imagery Intelligence (IMINT) and Signal Intelligence (SIGINT); Precision target geopositioning, mensuration, and imagery dissemination capabilities; Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) and Command and Control (C2) information via DCGS Integrated Backbone (DIB) and Net-Centric Enterprise Services (NCES) standards. Specifically, this funds tech refresh/upgrades/ Engineering Change Proposals (ECPs) to its subsystems to provide access and ingest data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                               |                                |                                |                                |                                        | <b>Date:</b> February 2018                                            |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>1 / PRODUCT IMPROVEMENT Afloat |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                               |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                       |                                |                                |                                |  |
| <b>Models of Systems Affected:</b> Ship                                          |                                |                                |                                | <b>Modification Type:</b> Tech Refresh/Upgrade                                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0305208N |                                                                       |                                |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                           | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                                                        | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PRODUCT IMPROVEMENT Afloat                      |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| 1.1.1) DCGS-N Tech Refresh/Upgrade - NonOrganic <sup>(1)</sup>                   | 20 / 23.935                    | 5 / 2.632                      | 6 / 4.031                      | 8 / 6.224                                                                                     | - / -                          | 8 / 6.224                      | 4 / 2.400                      | - / -                                  | - / -                                                                 | - / -                          | - / -                          | 43 / 39.222                    |  |
| <b>Subtotal: Recurring</b>                                                       | - / 23.935                     | - / 2.632                      | - / 4.031                      | - / 6.224                                                                                     | - / -                          | - / 6.224                      | - / 2.400                      | - / -                                  | - / -                                                                 | - / -                          | - / 0.000                      | - / 39.222                     |  |
| <b>Subtotal: PRODUCT IMPROVEMENT Afloat</b>                                      | 20 / 23.935                    | 5 / 2.632                      | 6 / 4.031                      | 8 / 6.224                                                                                     | - / -                          | 8 / 6.224                      | 4 / 2.400                      | - / -                                  | - / -                                                                 | - / -                          | - / -                          | 43 / 39.222                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                             | - / 23.935                     | - / 2.632                      | - / 4.031                      | - / 6.224                                                                                     | - / -                          | - / 6.224                      | - / 2.400                      | - / -                                  | - / -                                                                 | - / -                          | - / 0.000                      | - / 39.222                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| 2.1) Equipment Support                                                           | - / 4.774                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                                     | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                              | - / 0.000                                                             | - / 0.000                      | - / -                          | - / 4.774                      |  |
| 2.2) Production Support                                                          | - / 3.027                      | - / 0.171                      | - / 0.256                      | - / 0.404                                                                                     | - / 0.000                      | - / 0.404                      | - / 0.156                      | - / 0.000                              | - / 0.000                                                             | - / 0.000                      | - / -                          | - / 4.014                      |  |
| 2.3) DSA                                                                         | - / 3.346                      | - / 0.306                      | - / 0.378                      | - / 0.576                                                                                     | - / 0.000                      | - / 0.576                      | - / 0.238                      | - / 0.006                              | - / 0.000                                                             | - / 0.000                      | - / -                          | - / 4.850                      |  |
| <b>Subtotal: Support</b>                                                         | - / 11.147                     | - / 0.477                      | - / 0.634                      | - / 0.980                                                                                     | - / -                          | - / 0.980                      | - / 0.394                      | - / 0.006                              | - / -                                                                 | - / -                          | - / 0.000                      | - / 13.638                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PRODUCT IMPROVEMENT Afloat                      | - / 30.153                     | - / 1.200                      | - / 3.750                      | - / 2.850                                                                                     | - / 0.000                      | - / 2.850                      | - / 5.950                      | - / 0.300                              | - / 0.000                                                             | - / 0.000                      | - / 0.000                      | - / 44.203                     |  |
| <b>Subtotal: Installation</b>                                                    | - / 30.153                     | - / 1.200                      | - / 3.750                      | - / 2.850                                                                                     | - / -                          | - / 2.850                      | - / 5.950                      | - / 0.300                              | - / -                                                                 | - / -                          | - / 0.000                      | - / 44.203                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                       |                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>65.235</b>                  | <b>4.309</b>                   | <b>8.415</b>                   | <b>10.054</b>                                                                                 | <b>0.000</b>                   | <b>10.054</b>                  | <b>8.744</b>                   | <b>0.306</b>                           | <b>0.000</b>                                                          | <b>0.000</b>                   | <b>0.000</b>                   | <b>97.063</b>                  |  |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                                    |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                |           |                                |                |                                      |           |                                |                |                                | <b>Modification Number / Title:</b><br>1 / PRODUCT IMPROVEMENT Afloat |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | <b>MDAP/MAIS Code:</b>               |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> PRODUCT IMPROVEMENT Afloat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| Manufacturer Name: BAE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | Manufacturer Location: SAN DIEGO, CA |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | Production Leadtime (in Months): 6   |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                                |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |             |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | Dec 2016                       |                                |           |                                | Dec 2017       |                                |           |                                | Dec 2018                                                                                      |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | Jun 2017                       |                                |           |                                | Jun 2018       |                                |           |                                | Jun 2019                                                                                      |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: Product Improvement Afloat DCGS-N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                               | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                       |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                       | <b>To Complete</b>             |                | <b>Total</b>                   |             |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                               | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)       |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                       | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |             |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | 20 / 30.153                    |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 20 / 30.153 |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | 4 / 1.200 |                                | 1 / 0.950      |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 5 / 2.150   |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | - / -     |                                | 5 / 2.800      |                                | 1 / 0.950 |                                | 0 / 0.000                                                                                     |                                | 1 / 0.950 |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 6 / 3.750   |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | - / -     |                                | - / -          |                                | 2 / 1.900 |                                | 0 / 0.000                                                                                     |                                | 2 / 1.900 |                                | 6 / 5.050      |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 8 / 6.950   |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | 3 / 0.900      |                                      | 1 / 0.300 |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 4 / 1.200   |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | 20 / 30.153                    |                                | 4 / 1.200 |                                | 6 / 3.750      |                                | 3 / 2.850 |                                | 0 / 0.000                                                                                     |                                | 3 / 2.850 |                                | 9 / 5.950      |                                      | 1 / 0.300 |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 43 / 44.203 |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                                |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |             |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                                     | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                            | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                             | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>   | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 18         | 2                              | -                              | 2         | 1                              | 1              | 1                              | 2         | 2                              | 1                                                                                             | 1                              | -         | 2                              | 2              | 4                                    | 2         | 1                              | 1              | -                              | -                                                                     | -                              | -              | -                              | -           | -         | -              | -         | -         | -         | -         | 43         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 18         | 2                              | -                              | 2         | 1                              | 1              | 1                              | 2         | 2                              | 1                                                                                             | 1                              | -         | 2                              | 2              | 4                                    | 2         | 1                              | 1              | -                              | -                                                                     | -                              | -              | -                              | -           | -         | -              | -         | -         | -         | -         | 43         |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| (1) The FY19 increase in Product Improvement Afloat procurement unit cost is attributed to the variation in the Inc 1 technical refresh buy between FY18 and FY19. In FY18, (6) DCGS-N Inc 1 Tech Refreshes consist of (1) 1-rack Afloat tech refresh; (2) 2-rack Afloat tech refresh, and (3) End-of-Life Afloat Hardware Upgrades. In FY19, (8) DCGS-N Inc 1 Tech Refreshes consist of (7) 2-rack Afloat tech refresh and (1) End-Of-Life Afloat Hardware Upgrade. Procurement costs range from \$450K (for End-of-Life Afloat Hardware Upgrade) to \$870K (for 2-rack Afloat tech refresh). So procuring more 2-rack Afloat tech refresh drives the average unit cost higher in FY19. The FY19 increase in Product Improvement Afloat installation unit cost is attributed to a multitude of factors. First, the (6) FY18 DCGS-N Inc 1 technical refresh |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                               | <b>Date:</b> February 2018                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) | <b>Modification Number / Title:</b><br>1 / PRODUCT IMPROVEMENT Afloat |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                               | <b>MDAP/MAIS Code:</b>                                                |
| <p>installations consist of (2) 1-rack Afloat tech refresh, (1) 2-rack Afloat tech refresh, and (3) End-of-Life Afloat Hardware Upgrades. The (3) FY19 DCGS-N Inc 1 technical refresh installations consist of (3) 2-rack Afloat tech refresh. Installation costs range from \$300K (for End-of-Life Afloat Hardware Upgrade) to \$950K (for 2-rack Afloat tech refresh). Second, the DCGS-N Inc 1 Block 1 and 2 unit costs represent an average cost based on 3 Rack, 2 Rack, 1 Rack, and End-of-Life Hardware Upgrade configurations dependent on specific platform (CVN, LHD, LCC, LHA), network, infrastructure versions, and alignment with the Navy's Network Infrastructure CCE. In addition, unit costs continue to be updated based on actuals costs, locality and availability of platforms, and specific integration tasking associated with external dependent systems (e.g. Global Command and Control System - Maritime (GCCS-M), Radiant Mercury (RM), and others).</p> |                                                                                               |                                                                       |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                                               | <b>Date:</b> February 2018                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) | <b>Modification Number / Title:</b><br>2 / PRODUCT IMPROVEMENT Ashore |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 10.419      | 7.301   | 5.375   | 2.662        | 0.000       | 2.662           | 0.940   | 0.000   | 0.000   | 0.000   | 0.000       | 26.697 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 10.419      | 7.301   | 5.375   | 2.662        | 0.000       | 2.662           | 0.940   | 0.000   | 0.000   | 0.000   | 0.000       | 26.697 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 10.419      | 7.301   | 5.375   | 2.662        | 0.000       | 2.662           | 0.940   | 0.000   | 0.000   | 0.000   | 0.000       | 26.697 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Tech Refresh/Upgrade integration procures Commerical Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and unsupportable equipment for the DCGS-N program to include the processing and exploitation of tactical and Imagery Intelligence (IMINT) and Signal Intelligence (SIGINT); Precision target geopositioning, mensuration, and imagery dissemination capabilities; Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) and Command and Control (C2) information via DCGS Integrated Backbone (DIB) and Net-Centric Enterprise Services (NCES) standards. Specifically, this funds tech refresh/upgrades/Engineering Change Proposals (ECPs) to its subsystems to provide access and ingest data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers.

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|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                               |                                |                                |                                | <b>Date:</b> February 2018                                            |                                |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                |                                |                                | <b>Modification Number / Title:</b><br>2 / PRODUCT IMPROVEMENT Ashore |                                |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                               |                                |                                |                                | <b>MDAP/MAIS Code:</b>                                                |                                |                                |                                |                                |  |
| <b>Models of Systems Affected:</b> Shore                                         |                                |                                |                                | <b>Modification Type:</b> Tech Refresh/Upgrades                                               |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0305208N                                |                                |                                |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                           | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                                                        | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| <i>Modification Item 1 of 1:</i> PRODUCT IMPROVEMENT Ashore                      |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| 1.1.1) DCGS-N Tech Refresh/Upgrade - NonOrganic <sup>(2)</sup>                   | 7 / 6.001                      | 4 / 4.132                      | 4 / 3.122                      | 2 / 1.537                                                                                     | - / -                          | 2 / 1.537                      | 1 / 0.600                      | - / -                                                                 | - / -                          | - / -                          | - / -                          | 18 / 15.392                    |  |
| <i>Subtotal: Recurring</i>                                                       | - / 6.001                      | - / 4.132                      | - / 3.122                      | - / 1.537                                                                                     | - / -                          | - / 1.537                      | - / 0.600                      | - / -                                                                 | - / -                          | - / -                          | - / 0.000                      | - / 15.392                     |  |
| <i>Subtotal: PRODUCT IMPROVEMENT Ashore</i>                                      | 7 / 6.001                      | 4 / 4.132                      | 4 / 3.122                      | 2 / 1.537                                                                                     | - / -                          | 2 / 1.537                      | 1 / 0.600                      | - / -                                                                 | - / -                          | - / -                          | - / -                          | 18 / 15.392                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 6.001                      | - / 4.132                      | - / 3.122                      | - / 1.537                                                                                     | - / -                          | - / 1.537                      | - / 0.600                      | - / -                                                                 | - / -                          | - / -                          | - / 0.000                      | - / 15.392                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| 2.1) Production Support                                                          | - / 0.388                      | - / 0.269                      | - / 0.203                      | - / 0.100                                                                                     | - / -                          | - / 0.100                      | - / 0.040                      | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / 1.000                      |  |
| <i>Subtotal: Support</i>                                                         | - / 0.388                      | - / 0.269                      | - / 0.203                      | - / 0.100                                                                                     | - / -                          | - / 0.100                      | - / 0.040                      | - / -                                                                 | - / -                          | - / -                          | - / 0.000                      | - / 1.000                      |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| <i>Modification Item 1 of 1:</i> PRODUCT IMPROVEMENT Ashore                      | - / 4.030                      | - / 2.900                      | - / 2.050                      | - / 1.025                                                                                     | - / 0.000                      | - / 1.025                      | - / 0.300                      | - / 0.000                                                             | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 10.305                     |  |
| <i>Subtotal: Installation</i>                                                    | - / 4.030                      | - / 2.900                      | - / 2.050                      | - / 1.025                                                                                     | - / -                          | - / 1.025                      | - / 0.300                      | - / -                                                                 | - / -                          | - / -                          | - / 0.000                      | - / 10.305                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>10.419</b>                  | <b>7.301</b>                   | <b>5.375</b>                   | <b>2.662</b>                                                                                  | <b>0.000</b>                   | <b>2.662</b>                   | <b>0.940</b>                   | <b>0.000</b>                                                          | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>26.697</b>                  |  |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                                    |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                |           |                                |                |                                      |           |                                |                |                                | <b>Modification Number / Title:</b><br>2 / PRODUCT IMPROVEMENT Ashore |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | <b>MDAP/MAIS Code:</b>               |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> PRODUCT IMPROVEMENT Ashore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| Manufacturer Name: BAE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | Manufacturer Location: SAN DIEGO, CA |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | Production Leadtime (in Months): 6   |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                                |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |             |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Dec 2016                       |                                |           |                                | Dec 2017       |                                |           |                                | Dec 2018                                                                                      |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Jun 2017                       |                                |           |                                | Jun 2018       |                                |           |                                | Jun 2019                                                                                      |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: Product Improvement Ashore DCGS-N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                               | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                       |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                       | <b>To Complete</b>             |                | <b>Total</b>                   |             |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                               | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)       |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                       | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |             |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | 7 / 4.030                      |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 7 / 4.030   |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | 4 / 2.900 |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 4 / 2.900   |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | - / -     |                                | 4 / 2.050      |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 4 / 2.050   |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | - / -     |                                | - / -          |                                | 2 / 1.025 |                                | 0 / 0.000                                                                                     |                                | 2 / 1.025 |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 2 / 1.025   |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | 1 / 0.300      |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 1 / 0.300   |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | - / -                          |                                | - / -     |                                | - / -          |                                | - / -     |                                | - / -                                                                                         |                                | - / -     |                                | - / -          |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | - / -          |                                | - / -       |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | 7 / 4.030                      |                                | 4 / 2.900 |                                | 4 / 2.050      |                                | 2 / 1.025 |                                | 0 / 0.000                                                                                     |                                | 2 / 1.025 |                                | 1 / 0.300      |                                      | - / -     |                                | - / -          |                                | - / -                                                                 |                                | 0 / 0.000      |                                | 18 / 10.305 |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                                |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |             |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                                     | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                            | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                             | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>   | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7          | -                              | -                              | 2         | 2                              | -              | -                              | 2         | 2                              | -                                                                                             | -                              | 1         | 1                              | -              | -                                    | -         | 1                              | -              | -                              | -                                                                     | -                              | -              | -                              | -           | -         | -              | -         | -         | -         | -         | 18         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 7          | -                              | -                              | 2         | 2                              | -              | -                              | 2         | 2                              | -                                                                                             | -                              | 1         | 1                              | -              | -                                    | -         | 1                              | -              | -                              | -                                                                     | -                              | -              | -                              | -           | -         | -              | -         | -         | -         | -         | 18         |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |
| (2) DCGS-N Increment 1 planned ashore procurements in FY19 include (2) DCGS-N Increment 1 ashore technical refreshes that consist of (1) 2-rack Ashore technical refreshes and (1) End-of-Life Ashore Hardware Upgrades. These DCGS-N installations will replace the currently fielded legacy systems and leverage the Navy's Common Computing Environment (CCE) as applicable as well as provide upgrades to extend service life. Second, the DCGS-N Inc 1 Block 1 and Block 2 unit costs represent an average cost based on 5 Rack, 3 Rack, 2 Rack, 1 Rack, and End-of-Life Upgrade configurations dependent on specific site, network, infrastructure versions, and alignment with the Navy's Network Infrastructure (Common Computing Environment (CCE)). In addition, unit costs continue to be updated based on actuals |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |             |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                 |                                                                                               | <b>Date:</b> February 2018                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                           | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) | <b>Modification Number / Title:</b><br>2 / PRODUCT IMPROVEMENT Ashore |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                    |                                                                                               | <b>MDAP/MAIS Code:</b>                                                |
| costs, locality and availability of platforms, and specific integration tasking associated with external dependent systems (e.g. Global Command and Control System - Maritime (GCCS-M), Radiant Mercury (RM), and others). |                                                                                               |                                                                       |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|----------------------------------------------------------------------|--------------------|----------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                                                                                               |                    |                      |                        |                |                | <b>Date:</b> February 2018                                           |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / DCGS-N INCREMENT 2 Afloat |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                                                                               |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                      |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                       | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                                                                                             | -                  | -                    | -                      | -              | -              | -                                                                    | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.000              | 0.000          | 0.000          | 0.180                                                                                         | 0.000              | 0.180                | 7.929                  | 10.309         | 13.952         | 13.359                                                               | 232.167            | 277.896        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                                             | -                  | -                    | -                      | -              | -              | -                                                                    | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.000              | 0.000          | 0.000          | 0.180                                                                                         | 0.000              | 0.180                | 7.929                  | 10.309         | 13.952         | 13.359                                                               | 232.167            | 277.896        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                                                                             | -                  | -                    | -                      | -              | -              | -                                                                    | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>0.000</b>       | <b>0.000</b>   | <b>0.000</b>   | <b>0.180</b>                                                                                  | <b>0.000</b>       | <b>0.180</b>         | <b>7.929</b>           | <b>10.309</b>  | <b>13.952</b>  | <b>13.359</b>                                                        | <b>232.167</b>     | <b>277.896</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                                               |                    |                      |                        |                |                |                                                                      |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                                             | -                  | -                    | -                      | -              | -              | -                                                                    | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                                                                             | -                  | -                    | -                      | -              | -              | -                                                                    | -                  | -              |
| <p><b>Description:</b></p> <p>DCGS-N Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities; integrate TCPED capabilities to improve the use and analysis of sensor and platform data; based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness.</p> |                    |                |                |                                                                                               |                    |                      |                        |                |                |                                                                      |                    |                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       | <b>Date:</b> February 2018                                           |                                       |                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>3 / DCGS-N INCREMENT 2 Afloat |                                       |                                       |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                                               |                                       |                                       |                                       |                                       |  |
| <b>Models of Systems Affected:</b> Ship                                          |                                       |                                       |                                       | <b>Modification Type:</b> New Model                                                           |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0305208N                               |                                       |                                       |                                       |                                       |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                                           | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                                                       | <b>FY 2022</b>                        | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                         | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                               |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> DCGS-N INCREMENT 2 Afloat                       |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| B Kits                                                                           |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| Recurring                                                                        |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| 1.1.1) Procurement - NonOrganic                                                  | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                         | - / -                                 | - / -                                 | 2 / 4.863                             | 7 / 4.600                                                            | 8 / 4.570                             | 5 / 3.145                             | - / 82.086                            | 22 / 99.264                           |  |
| <i>Subtotal: Recurring</i>                                                       | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                                                         | - / -                                 | - / -                                 | - / 4.863                             | - / 4.600                                                            | - / 4.570                             | - / 3.145                             | - / 82.086                            | - / 99.264                            |  |
| <i>Subtotal: DCGS-N INCREMENT 2 Afloat</i>                                       | - / -                                 | - / -                                 | - / -                                 | - / -                                                                                         | - / -                                 | - / -                                 | 2 / 4.863                             | 7 / 4.600                                                            | 8 / 4.570                             | 5 / 3.145                             | - / 82.086                            | 22 / 99.264                           |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                                                         | - / -                                 | - / -                                 | - / 4.863                             | - / 4.600                                                            | - / 4.570                             | - / 3.145                             | - / 82.086                            | - / 99.264                            |  |
| <b>Support (All Modification Items)</b>                                          |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| 2.2) DSA                                                                         | - / -                                 | - / -                                 | - / -                                 | - / 0.180                                                                                     | - / -                                 | - / 0.180                             | - / 0.450                             | - / 0.810                                                            | - / 1.035                             | - / 0.810                             | - / 14.709                            | - / 17.994                            |  |
| <i>Subtotal: Support</i>                                                         | - / 0.000                             | - / -                                 | - / -                                 | - / 0.180                                                                                     | - / -                                 | - / 0.180                             | - / 0.450                             | - / 0.810                                                            | - / 1.035                             | - / 0.810                             | - / 14.709                            | - / 17.994                            |  |
| <b>Installation</b>                                                              |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> DCGS-N INCREMENT 2 Afloat                       | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                                                                                     | - / 0.000                             | - / 0.000                             | - / 2.300                             | - / 4.600                                                            | - / 8.050                             | - / 9.200                             | - / 130.036                           | - / 154.186                           |  |
| <i>Subtotal: Installation</i>                                                    | - / 0.000                             | - / -                                 | - / -                                 | - / -                                                                                         | - / -                                 | - / -                                 | - / 2.300                             | - / 4.600                                                            | - / 8.050                             | - / 9.200                             | - / 130.036                           | - / 154.186                           |  |
| <b>Total</b>                                                                     |                                       |                                       |                                       |                                                                                               |                                       |                                       |                                       |                                                                      |                                       |                                       |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>0.180</b>                                                                                  | <b>0.000</b>                          | <b>0.180</b>                          | <b>7.929</b>                          | <b>10.309</b>                                                        | <b>13.952</b>                         | <b>13.359</b>                         | <b>232.167</b>                        | <b>277.896</b>                        |  |

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|------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------|-----------|---------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------|-----------|---------------------------------------|----------------|--------------------------------------------|-----------|---------------------------------------|----------------|---------------------------------------|----------------------------------------------------------------------|---------------------------------------|----------------|---------------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                         |            |                                       |                                       |           |                                       |                |                                       |           |                                       | <b>Date:</b> February 2018                                                                    |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10   |            |                                       |                                       |           |                                       |                |                                       |           |                                       | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                       |           |                                       |                |                                            |           |                                       |                |                                       | <b>Modification Number / Title:</b><br>3 / DCGS-N INCREMENT 2 Afloat |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                            |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                | <b>MDAP/MAIS Code:</b>                     |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> DCGS-N INCREMENT 2 Afloat                         |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                    |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Manufacturer Name: TBD                                                             |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                | Manufacturer Location: N/A                 |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 0                                     |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                | Production Leadtime <i>(in Months)</i> : 0 |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                       |            | <b>FY 2017</b>                        |                                       |           |                                       | <b>FY 2018</b> |                                       |           |                                       | <b>FY 2019</b>                                                                                |                                       |           |                                       | <b>FY 2020</b> |                                            |           |                                       | <b>FY 2021</b> |                                       |                                                                      |                                       | <b>FY 2022</b> |                                       |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                     |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                     |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                    |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Procurement |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                           |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        |           | <b>FY 2018</b>                        |                | <b>FY 2019 Base</b>                   |           | <b>FY 2019 OCO</b>                    |                                                                                               | <b>FY 2019 Total</b>                  |           | <b>FY 2020</b>                        |                | <b>FY 2021</b>                             |           | <b>FY 2022</b>                        |                | <b>FY 2023</b>                        |                                                                      | <b>To Complete</b>                    |                | <b>Total</b>                          |           |           |                |           |           |           |           |            |
|                                                                                    |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                                               | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i>      |           | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                      | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |                |           |           |           |           |            |
| Prior Years                                                                        |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                      | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                      | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2018                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                      | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2019                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                      | - / -                                 |                | - / -                                 |           | - / -     |                |           |           |           |           |            |
| FY 2020                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | 2 / 2.300                             |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                      | 0 / 0.000                             |                | 2 / 2.300                             |           |           |                |           |           |           |           |            |
| FY 2021                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | 4 / 4.600                                  |           | 3 / 3.450                             |                | - / -                                 |                                                                      | 0 / 0.000                             |                | 7 / 8.050                             |           |           |                |           |           |           |           |            |
| FY 2022                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | 4 / 4.600                             |                | 4 / 4.600                             |                                                                      | 0 / 0.000                             |                | 8 / 9.200                             |           |           |                |           |           |           |           |            |
| FY 2023                                                                            |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | 4 / 4.600                             |                                                                      | 1 / 130.036                           |                | 5 / 134.636                           |           |           |                |           |           |           |           |            |
| To Complete                                                                        |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | - / -                                 |                | - / -                                      |           | - / -                                 |                | - / -                                 |                                                                      | - / -                                 |                | - / -                                 |           |           |                |           |           |           |           |            |
| Total                                                                              |            | - / -                                 | - / -                                 |           | - / -                                 |                | - / -                                 |           | - / -                                 |                                                                                               | - / -                                 |           | 2 / 2.300                             |                | 4 / 4.600                                  |           | 7 / 8.050                             |                | 8 / 9.200                             |                                                                      | 1 / 130.036                           |                | 22 / 154.186                          |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                       |            |                                       |                                       |           |                                       |                |                                       |           |                                       |                                                                                               |                                       |           |                                       |                |                                            |           |                                       |                |                                       |                                                                      |                                       |                |                                       |           |           |                |           |           |           |           |            |
|                                                                                    | <b>PYS</b> | <b>FY 2017</b>                        |                                       |           |                                       | <b>FY 2018</b> |                                       |           |                                       | <b>FY 2019</b>                                                                                |                                       |           |                                       | <b>FY 2020</b> |                                            |           |                                       | <b>FY 2021</b> |                                       |                                                                      |                                       | <b>FY 2022</b> |                                       |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                    |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>                                                                                     | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                                  | <b>Q3</b> | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b>                                                            | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                 | -          | -                                     | -                                     | -         | -                                     | -              | -                                     | -         | -                                     | -                                                                                             | -                                     | -         | -                                     | -              | -                                          | 1         | 1                                     | -              | -                                     | 3                                                                    | 1                                     | 2              | 1                                     | -         | 4         | -              | 4         | 4         | -         | 1         | 22         |
| Out                                                                                | -          | -                                     | -                                     | -         | -                                     | -              | -                                     | -         | -                                     | -                                                                                             | -                                     | -         | -                                     | -              | -                                          | 1         | 1                                     | -              | -                                     | 3                                                                    | 1                                     | 2              | 1                                     | -         | 4         | -              | 4         | 4         | -         | 1         | 22         |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                                               |  | <b>Date:</b> February 2018 |  |                                                                      |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |  |                            |  | <b>Modification Number / Title:</b><br>4 / DCGS-N INCREMENT 2 Ashore |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 0.000       | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 3.120   | 10.261  | 0.943   | 12.333  | 0.000       | 26.657 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 0.000       | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 3.120   | 10.261  | 0.943   | 12.333  | 0.000       | 26.657 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 0.000       | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 3.120   | 10.261  | 0.943   | 12.333  | 0.000       | 26.657 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

DCGS-N Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities; integrate Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capabilities to improve the use and analysis of sensor and platform data; based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness.

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|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|----------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                               |                                |                                |                                |                                        | <b>Date:</b> February 2018                                           |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>4 / DCGS-N INCREMENT 2 Ashore |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                               |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                                                      |                                |                                |                                |  |
| <b>Models of Systems Affected:</b> Shore                                         |                                |                                |                                | <b>Modification Type:</b> New Model                                                           |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0305208N |                                                                      |                                |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                           | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                                                       | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                      |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> DCGS-N INCREMENT 2 Ashore                       |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                      |                                |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                      |                                |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                      |                                |                                |                                |  |
| 1.1.1) Procurements - NonOrganic                                                 | - / -                          | - / -                          | - / -                          | - / -                                                                                         | - / -                          | - / -                          | 1 / 2.484                      | 6 / 6.677                              | 1 / 0.369                                                            | 8 / 7.660                      | - / -                          | 16 / 17.190                    |  |
| Subtotal: Recurring                                                              | - / 0.000                      | - / -                          | - / -                          | - / -                                                                                         | - / -                          | - / -                          | - / 2.484                      | - / 6.677                              | - / 0.369                                                            | - / 7.660                      | - / 0.000                      | - / 17.190                     |  |
| Subtotal: DCGS-N INCREMENT 2 Ashore                                              | - / -                          | - / -                          | - / -                          | - / -                                                                                         | - / -                          | - / -                          | 1 / 2.484                      | 6 / 6.677                              | 1 / 0.369                                                            | 8 / 7.660                      | - / -                          | 16 / 17.190                    |  |
| Subtotal: Procurement, All Modification Items                                    | - / 0.000                      | - / -                          | - / -                          | - / -                                                                                         | - / -                          | - / -                          | - / 2.484                      | - / 6.677                              | - / 0.369                                                            | - / 7.660                      | - / 0.000                      | - / 17.190                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                      |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> DCGS-N INCREMENT 2 Ashore                       | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                                     | - / 0.000                      | - / 0.000                      | - / 0.475                      | - / 3.150                              | - / 0.550                                                            | - / 4.175                      | - / 0.000                      | - / 8.350                      |  |
| Subtotal: Installation                                                           | - / 0.000                      | - / -                          | - / -                          | - / -                                                                                         | - / -                          | - / -                          | - / 0.475                      | - / 3.150                              | - / 0.550                                                            | - / 4.175                      | - / 0.000                      | - / 8.350                      |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                                               |                                |                                |                                |                                        |                                                                      |                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                                                                                  | <b>0.000</b>                   | <b>0.000</b>                   | <b>3.120</b>                   | <b>10.261</b>                          | <b>0.943</b>                                                         | <b>12.333</b>                  | <b>0.000</b>                   | <b>26.657</b>                  |  |

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|-------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|------------------------------------|-----------|--------------------------------|----------------|--------------------------------|----------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|----|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                          |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                                    |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10    |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2914 / Distributed Common Ground System-Navy (DCGS-N) |                                |           |                                |                |                                    |           |                                |                |                                | <b>Modification Number / Title:</b><br>4 / DCGS-N INCREMENT 2 Ashore |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | <b>MDAP/MAIS Code:</b>             |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Modification Item 1 of 1:</b> DCGS-N INCREMENT 2 Ashore                          |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Manufacturer Information</b>                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| Manufacturer Name: TBD                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | Manufacturer Location: N/A         |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| Administrative Leadtime (in Months): 0                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                | Production Leadtime (in Months): 0 |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Dates</b>                                                                        |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                                |                                |           |                                | <b>FY 2020</b> |                                    |           |                                | <b>FY 2021</b> |                                |                                                                      |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |    |
| Contract Dates                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| Delivery Dates                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Installation Information</b>                                                     |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Procurements |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
| <b>Installation Cost</b>                                                            |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                               | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                     |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                      | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |    |
|                                                                                     |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                               | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)     |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                      | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |    |
| Prior Years                                                                         |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                      | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |    |
| FY 2017                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                      | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |    |
| FY 2018                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                      | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |    |
| FY 2019                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                      | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |    |
| FY 2020                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | 1 / 0.475                      |                | - / -                              |           | - / -                          |                | - / -                          |                                                                      | 0 / 0.000                      |                | 1 / 0.475                      |           |           |                |           |           |           |           |            |    |
| FY 2021                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | 6 / 3.150                          |           | - / -                          |                | - / -                          |                                                                      | 0 / 0.000                      |                | 6 / 3.150                      |           |           |                |           |           |           |           |            |    |
| FY 2022                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | 1 / 0.550                      |                | - / -                          |                                                                      | 0 / 0.000                      |                | 1 / 0.550                      |           |           |                |           |           |           |           |            |    |
| FY 2023                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | 8 / 4.175                      |                                                                      | 0 / 0.000                      |                | 8 / 4.175                      |           |           |                |           |           |           |           |            |    |
| To Complete                                                                         |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                      | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |    |
| Total                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                               | - / -                          |           | 1 / 0.475                      |                | 6 / 3.150                          |           | 1 / 0.550                      |                | 8 / 4.175                      |                                                                      | 0 / 0.000                      |                | 16 / 8.350                     |           |           |                |           |           |           |           |            |    |
| <b>Installation Schedule</b>                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                                      |                                |                |                                |           |           |                |           |           |           |           |            |    |
|                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                                |                                |           |                                | <b>FY 2020</b> |                                    |           |                                | <b>FY 2021</b> |                                |                                                                      |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |    |
|                                                                                     |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                                     | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                          | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                            | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |    |
| In                                                                                  | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                                                             | -                              | -         | -                              | -              | -                                  | 1         | -                              | -              | -                              | 3                                                                    | 3                              | -              | -                              | 1         | -         | -              | -         | -         | 4         | 4         | -          | 16 |
| Out                                                                                 | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | -                                                                                             | -                              | -         | -                              | -              | -                                  | 1         | -                              | -              | -                              | 3                                                                    | 3                              | -              | -                              | 1         | -         | -              | -         | -         | 4         | 4         | -          | 16 |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                           |                                                      |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|

|                                                          |                                               |                                                 |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0303138N |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|

**Line Item MDAP/MAIS Code:** M417

| Resource Summary                                          | Prior Years      | FY 2017        | FY 2018        | FY 2019 Base   | FY 2019 OCO  | FY 2019 Total  | FY 2020        | FY 2021        | FY 2022        | FY 2023        | To Complete      | Total            |
|-----------------------------------------------------------|------------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|
| Procurement Quantity ( <i>Units in Each</i> )             | -                | -              | -              | -              | -            | -              | -              | -              | -              | -              | -                | -                |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )        | 1,344.079        | 207.730        | 322.754        | 423.027        | 0.000        | 423.027        | 428.315        | 394.533        | 441.888        | 414.738        | 3,306.619        | 7,283.683        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )     | -                | -              | -              | -              | -            | -              | -              | -              | -              | -              | -                | -                |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )           | 1,344.079        | 207.730        | 322.754        | 423.027        | 0.000        | 423.027        | 428.315        | 394.533        | 441.888        | 414.738        | 3,306.619        | 7,283.683        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )     | -                | -              | -              | -              | -            | -              | -              | -              | -              | -              | -                | -                |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b> | <b>1,344.079</b> | <b>207.730</b> | <b>322.754</b> | <b>423.027</b> | <b>0.000</b> | <b>423.027</b> | <b>428.315</b> | <b>394.533</b> | <b>441.888</b> | <b>414.738</b> | <b>3,306.619</b> | <b>7,283.683</b> |

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

|                                                          |   |       |        |       |   |       |       |       |       |       |            |            |
|----------------------------------------------------------|---|-------|--------|-------|---|-------|-------|-------|-------|-------|------------|------------|
| Initial Spares ( <i>\$ in Millions</i> )                 | - | 3.023 | 11.645 | 7.250 | - | 7.250 | 6.782 | 5.423 | 2.302 | 6.015 | Continuing | Continuing |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )             | - | -     | -      | -     | - | -     | -     | -     | -     | -     | -          | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> ) | - | -     | -      | -     | - | -     | -     | -     | -     | -     | -          | -          |

## Description:

Consolidated Afloat Networks and Enterprise Services (CANES) is the Navy's Program of Record (POR) to replace and modernize existing afloat networks with the necessary hardware, software and enterprise services infrastructure to enable information warfare from and within the tactical domain. CANES provides complete infrastructure inclusive of hardware, software, processing, storage and end user devices for the Unclassified, Coalition, Secret and Sensitive Compartmented Information (SCI) enclaves to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers, and Aegis Ashore sites. CANES services include application hosting, data transport and storage, system management, cyber security, email, web, chat, collaboration, and voice and video services. CANES is based on the overarching concept of reducing the number of afloat networks and providing enhanced efficiency through a single engineering focus on integrated technical solutions. It allows for streamlined acquisition, contracting, test events, sustainment, and significant lifecycle efficiencies through consolidation of multiple configuration management baselines, logistics, and training efforts into a single unified support structure.

More than eighty (80) hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Specific programs, such as Distributed Common Ground System - Navy (DCGS-N), Global Command and Control System - Maritime (GCCS-M), Naval Tactical Command Support System (NTCSS), and Undersea Warfare Decision Support System (USW-DSS), no longer provide their own independent network hardware and now depend on CANES to field, host, and sustain their capabilities. The CANES Application Integration program provides common software governance, testing, processes, and tools to application developers, and evaluates and confirms compatibility between CANES and the hosted applications prior to fielding. CANES also provides a set of capabilities called Agile Core Services (ACS) which brings common network services to allow hosted application developers to focus on the unique capabilities they provide.

CANES is funded and programmed to develop regular technical updates with an agile and robust hardware and software baseline development cycle necessary to pace rapidly evolving cyber security threats and meet emerging operational demands within the tactical domain. In order to deliver a mission effective, secure and affordable afloat network, CANES implements a Development Operations (DevOps) framework to improve its engineering processes and speed the deployment of new cyber security, application hosting and baseline updates. CANES requires that Automated Digital Network System (ADNS) field prior to or concurrently with CANES due to the architectural reliance between the two programs.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------|--|--|------------------------------------------------------|--|----------------------------|--|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                      |  |  |                                               |  |  |                                                      |  | <b>Date:</b> February 2018 |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment |  |  |                                               |  |  | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |  |                            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                               |  |  | <b>Program Elements for Code B Items:</b> N/A |  |  | <b>Other Related Program Elements:</b> 0303138N      |  |                            |  |
| <b>Line Item MDAP/MAIS Code:</b> M417                                                                                                                                                  |  |  |                                               |  |  |                                                      |  |                            |  |

  

| Exhibits Schedule |                                              |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|----------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                       | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5               | 1 / Consolidated Prior Year Requirements     |             |       |                | - / 179.317                              | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| P-3a              | 1 / 5F010/5F777 CANES - Afloat Non-MIP (TBD) |             |       |                | - / 1,155.405                            | - / 207.730                              | - / 320.600                              | - / 404.726                              | - / 0.000                                | - / 404.726                              |
| P-3a              | 2 / 5F010/5F776 CANES - Ashore Non-MIP (TBD) |             |       |                | - / 9.357                                | - / 0.000                                | - / 2.154                                | - / 18.301                               | - / 0.000                                | - / 18.301                               |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>        |             |       |                | <b>- / 1,344.079</b>                     | <b>- / 207.730</b>                       | <b>- / 322.754</b>                       | <b>- / 423.027</b>                       | <b>- / 0.000</b>                         | <b>- / 423.027</b>                       |

  

| Exhibits Schedule |                                              |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|----------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                       | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5               | 1 / Consolidated Prior Year Requirements     |             |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / 5F010/5F777 CANES - Afloat Non-MIP (TBD) |             |       |                | - / 404.292                              | - / 378.547                              | - / 439.976                              | - / 406.761                              | - / 2,768.949                            | - / 6,486.986                            |
| P-3a              | 2 / 5F010/5F776 CANES - Ashore Non-MIP (TBD) |             |       |                | - / 24.023                               | - / 15.986                               | - / 1.912                                | - / 7.977                                | - / 112.835                              | - / 192.545                              |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>        |             |       |                | <b>- / 428.315</b>                       | <b>- / 394.533</b>                       | <b>- / 441.888</b>                       | <b>- / 414.738</b>                       | <b>- / 3,306.619</b>                     | <b>- / 7,283.683</b>                     |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

  

**Justification:**  
The FY19 increase in the CANES funding profile optimizes the Chief of Naval Operations (CNO) ship availabilities with the CANES program's capacity and capability to procure and install the product. This ensures CANES is deployed to the Fleet as quickly and effectively as possible to mitigate heightened cyber security threats across Navy tactical networks and supports the DoD direction to remove End of Life (EOL) Windows Operating Systems software from the Fleet as quickly as feasible. Microsoft's end of cyber security support for legacy versions of Windows, as well as networks that rely on obsolete hardware and software, are driving increased sustainment costs, reducing operational availability and creating critical cyber security vulnerability in Navy Tactical Networks. Replacing these legacy networks and modernizing the tactical environment with CANES is the cornerstone for all C4ISR investments. CANES is a mature program with an innovative Multi Award Contract (MAC) in place that has consistently proven capable of delivering on or ahead of schedule. Additionally, it has decreased its installation time and continues to work towards decreasing ship touch time during installations. The MAC ensures enough capacity to execute production and installation growth.

FY 2019 - CANES funds are for the procurement of (20) Afloat production units (2 Force Level, 9 Unit Level, 9 Subs), (25) Technical Insertion units (7 Force Level, 13 Unit Level, 5 Subs), and (1) Afloat First Article, with integration and associated costs for pre-installation design and the installation of (22) Afloat production units and (9) Technical Insertion units. CANES funds will also be used for the procurement (3) Ashore units and (2) Ashore Technical Insertion units and the installation of (1) Ashore unit and (2) Ashore Technical Insertion units.

It is important to note that procurement quantities across the FYDP are the same CANES end item products referenced in CANES LI 2925. Installation quantities represent sites receiving CANES as also referenced in LI 2925. The associated dollars in this exhibit represent the non-Intell portions of the CANES enclave.

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|------------------------------------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|---------------------------------------------------------------------------------|----------------------------|----------------------|-----------------------------|----------------------------|----------------------|-----------------------------|
| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                                                                                                                    |                            |                      |                             |                            |                      |                                                      |                            |                      |                             |                            |                      | <b>Date:</b> February 2018                                                      |                            |                      |                             |                            |                      |                             |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                   |                            |                      |                             |                            |                      | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |                            |                      |                             |                            |                      | <b>Item Number / Title [DODIC]:</b><br>1 / Consolidated Prior Year Requirements |                            |                      |                             |                            |                      |                             |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                            |                            |                      |                             |                            |                      |                                                      |                            |                      | <b>MDAP/MAIS Code:</b>      |                            |                      |                                                                                 |                            |                      |                             |                            |                      |                             |
| <b>Resource Summary</b>                                                                                                                                                            |                            |                      |                             | <b>Prior Years</b>         |                      | <b>FY 2017</b>                                       |                            | <b>FY 2018</b>       |                             | <b>FY 2019 Base</b>        |                      | <b>FY 2019 OCO</b>                                                              |                            | <b>FY 2019 Total</b> |                             |                            |                      |                             |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                        |                            |                      |                             | -                          |                      | -                                                    |                            | -                    |                             | -                          |                      | -                                                                               |                            | -                    |                             |                            |                      |                             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                   |                            |                      |                             | 179.317                    |                      | 0.000                                                |                            | 0.000                |                             | 0.000                      |                      | 0.000                                                                           |                            | 0.000                |                             |                            |                      |                             |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                |                            |                      |                             | -                          |                      | -                                                    |                            | -                    |                             | -                          |                      | -                                                                               |                            | -                    |                             |                            |                      |                             |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                      |                            |                      |                             | 179.317                    |                      | 0.000                                                |                            | 0.000                |                             | 0.000                      |                      | 0.000                                                                           |                            | 0.000                |                             |                            |                      |                             |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                |                            |                      |                             | -                          |                      | -                                                    |                            | -                    |                             | -                          |                      | -                                                                               |                            | -                    |                             |                            |                      |                             |
| <b>Total Obligation Authority</b> <i>(\$ in Millions)</i>                                                                                                                          |                            |                      |                             | <b>179.317</b>             |                      | <b>0.000</b>                                         |                            | <b>0.000</b>         |                             | <b>0.000</b>               |                      | <b>0.000</b>                                                                    |                            | <b>0.000</b>         |                             |                            |                      |                             |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                      |                            |                      |                             |                            |                      |                                                      |                            |                      |                             |                            |                      |                                                                                 |                            |                      |                             |                            |                      |                             |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                             |                            |                      |                             | -                          |                      | -                                                    |                            | -                    |                             | -                          |                      | -                                                                               |                            | -                    |                             |                            |                      |                             |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                                                             |                            |                      |                             | -                          |                      | -                                                    |                            | -                    |                             | -                          |                      | -                                                                               |                            | -                    |                             |                            |                      |                             |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                     |                            |                      |                             |                            |                      |                                                      |                            |                      |                             |                            |                      |                                                                                 |                            |                      |                             |                            |                      |                             |
| <b>Cost Elements</b>                                                                                                                                                               | <b>Prior Years</b>         |                      |                             | <b>FY 2017</b>             |                      |                                                      | <b>FY 2018</b>             |                      |                             | <b>FY 2019 Base</b>        |                      |                                                                                 | <b>FY 2019 OCO</b>         |                      |                             | <b>FY 2019 Total</b>       |                      |                             |
|                                                                                                                                                                                    | <b>Unit Cost</b><br>(\$ K) | <b>Qty</b><br>(Each) | <b>Total Cost</b><br>(\$ M) | <b>Unit Cost</b><br>(\$ K) | <b>Qty</b><br>(Each) | <b>Total Cost</b><br>(\$ M)                          | <b>Unit Cost</b><br>(\$ K) | <b>Qty</b><br>(Each) | <b>Total Cost</b><br>(\$ M) | <b>Unit Cost</b><br>(\$ K) | <b>Qty</b><br>(Each) | <b>Total Cost</b><br>(\$ M)                                                     | <b>Unit Cost</b><br>(\$ K) | <b>Qty</b><br>(Each) | <b>Total Cost</b><br>(\$ M) | <b>Unit Cost</b><br>(\$ K) | <b>Qty</b><br>(Each) | <b>Total Cost</b><br>(\$ M) |
| Flyaway - Consolidated Prior Year Requirements Cost                                                                                                                                |                            |                      |                             |                            |                      |                                                      |                            |                      |                             |                            |                      |                                                                                 |                            |                      |                             |                            |                      |                             |
| Non Recurring Cost                                                                                                                                                                 |                            |                      |                             |                            |                      |                                                      |                            |                      |                             |                            |                      |                                                                                 |                            |                      |                             |                            |                      |                             |
| 1.1.1) Consolidated Prior Year Requirements                                                                                                                                        | -                          | -                    | 179.317                     | -                          | -                    | 0.000                                                | -                          | -                    | 0.000                       | -                          | -                    | 0.000                                                                           | -                          | -                    | 0.000                       | -                          | -                    | 0.000                       |
| Subtotal: Non Recurring Cost                                                                                                                                                       | -                          | -                    | 179.317                     | -                          | -                    | 0.000                                                | -                          | -                    | 0.000                       | -                          | -                    | 0.000                                                                           | -                          | -                    | 0.000                       | -                          | -                    | 0.000                       |
| Subtotal: Flyaway - Consolidated Prior Year Requirements Cost                                                                                                                      | -                          | -                    | 179.317                     | -                          | -                    | 0.000                                                | -                          | -                    | 0.000                       | -                          | -                    | 0.000                                                                           | -                          | -                    | 0.000                       | -                          | -                    | 0.000                       |
| Gross/Weapon System Cost                                                                                                                                                           | -                          | -                    | 179.317                     | -                          | -                    | 0.000                                                | -                          | -                    | 0.000                       | -                          | -                    | 0.000                                                                           | -                          | -                    | 0.000                       | -                          | -                    | 0.000                       |
| <b>Remarks:</b><br>Consolidated Prior Year Requirements consists of: 1) CANES European Reassurance Initiative, 2) Operation Rolling Tide, and 3) Automated Digital Network System. |                            |                      |                             |                            |                      |                                                      |                            |                      |                             |                            |                      |                                                                                 |                            |                      |                             |                            |                      |                             |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                      |  | <b>Date:</b> February 2018 |  |                                                                               |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |  |                            |  | <b>Modification Number / Title:</b><br>1 / 5F010/5F777 CANES - Afloat Non-MIP |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |           |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|-----------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total     |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 1,155.405   | 207.730 | 320.600 | 404.726      | 0.000       | 404.726         | 404.292 | 378.547 | 439.976 | 406.761 | 2,768.949   | 6,486.986 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 1,155.405   | 207.730 | 320.600 | 404.726      | 0.000       | 404.726         | 404.292 | 378.547 | 439.976 | 406.761 | 2,768.949   | 6,486.986 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Total Obligation Authority (\$ in Millions)                                                                                            | 1,155.405   | 207.730 | 320.600 | 404.726      | 0.000       | 404.726         | 404.292 | 378.547 | 439.976 | 406.761 | 2,768.949   | 6,486.986 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |           |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |

**Description:**

The consolidation of existing Afloat Network program of record designed to provide an agile, responsive Common Computing Environment (CCE) and afloat Core Services (ACS) within and upon which application developers will host Command and Control, Warfare, Intelligence, Logistics, and business and education applications and services. Migration of Non-Classified Enclave (NCE) capabilities into the CANES baseline. CANES is a mature program required to mitigate heightened cyber security threats across Navy tactical networks.



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|-------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|-------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                            |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        | <b>Date:</b> February 2018                                                    |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                      |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>1 / 5F010/5F777 CANES - Afloat Non-MIP |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                               |                                |                                |                                |                                |                                                      |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                               |                                |                                |  |
| <b>Models of Systems Affected:</b> Consolidated Afloat Networks & Enterprise Services (CANES) Non-MIP |                                |                                |                                |                                | <b>Modification Type:</b> TBD                        |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0303138N |                                                                               |                                |                                |  |
| <b>Financial Plan</b>                                                                                 | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                   | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                         | <b>FY 2023</b>                                                                | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                    |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| <i>Modification Item 1 of 1:</i> 5F010/5F777 CANES - Afloat Non-MIP                                   |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| B Kits                                                                                                |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| Recurring                                                                                             |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| 1.1.1) CANES - Afloat 5F010/5F777 (Non-MIP) - NonOrganic <sup>(1)</sup>                               | 73 / 471.348                   | 13 / 71.958                    | 22 / 137.994                   | 20 / 111.076                   | - / -                                                | 20 / 111.076                   | 17 / 78.448                    | 20 / 90.076                    | 11 / 46.838                            | 9 / 48.120                                                                    | - / -                          | 185 / 1,055.858                |  |
| 1.1.2) CANES - Afloat Technical Insertion (Non-MIP) - NonOrganic <sup>(2)</sup>                       | 3 / 11.000                     | 11 / 38.920                    | 8 / 35.925                     | 25 / 82.685                    | - / -                                                | 25 / 82.685                    | 13 / 54.711                    | 27 / 108.003                   | 36 / 153.544                           | 35 / 146.407                                                                  | 403 / 1,346.030                | 561 / 1,977.225                |  |
| 1.1.3) CANES - Service Life Extension Program (SLEP) (Non-MIP) - NonOrganic                           | 8 / 8.424                      | - / -                          | - / -                          | - / -                          | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                         | - / -                          | 8 / 8.424                      |  |
| <i>Subtotal: Recurring</i>                                                                            | - / 490.772                    | - / 110.878                    | - / 173.919                    | - / 193.761                    | - / -                                                | - / 193.761                    | - / 133.159                    | - / 198.079                    | - / 200.382                            | - / 194.527                                                                   | - / 1,346.030                  | - / 3,041.507                  |  |
| Non-Recurring                                                                                         |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| 1.2.1) CANES - Afloat First Articles (Non-MIP) - Organic <sup>(3)</sup>                               | 10 / 63.527                    | 1 / 8.000                      | 1 / 7.563                      | 1 / 7.499                      | - / -                                                | 1 / 7.499                      | - / -                          | - / -                          | - / -                                  | - / -                                                                         | - / -                          | 13 / 86.589                    |  |
| 1.2.2) CANES - Non-Recurring Engineering (Non-MIP) - Organic                                          | - / 26.907                     | - / -                          | - / -                          | - / -                          | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                         | - / -                          | - / 26.907                     |  |
| <i>Subtotal: Non-Recurring</i>                                                                        | - / 90.434                     | - / 8.000                      | - / 7.563                      | - / 7.499                      | - / -                                                | - / 7.499                      | - / -                          | - / -                          | - / -                                  | - / -                                                                         | - / 0.000                      | - / 113.496                    |  |
| <i>Subtotal: 5F010/5F777 CANES - Afloat Non-MIP</i>                                                   | 94 / 581.206                   | 25 / 118.878                   | 31 / 181.482                   | 46 / 201.260                   | - / -                                                | 46 / 201.260                   | 30 / 133.159                   | 47 / 198.079                   | 47 / 200.382                           | 44 / 194.527                                                                  | 403 / 1,346.030                | 767 / 3,155.003                |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                  | - / 581.206                    | - / 118.878                    | - / 181.482                    | - / 201.260                    | - / -                                                | - / 201.260                    | - / 133.159                    | - / 198.079                    | - / 200.382                            | - / 194.527                                                                   | - / 1,346.030                  | - / 3,155.003                  |  |
| <b>Support (All Modification Items)</b>                                                               |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| 2.1) CANES - Afloat Production Support (Non-MIP)                                                      | - / 25.096                     | - / 5.836                      | - / 8.920                      | - / 10.198                     | - / 0.000                                            | - / 10.198                     | - / 7.008                      | - / 10.425                     | - / 10.546                             | - / 10.238                                                                    | - / 70.844                     | - / 159.111                    |  |
| 2.2) CANES - Afloat Design Service Agent (Non-MIP)                                                    | - / 49.811                     | - / 5.816                      | - / 12.890                     | - / 12.934                     | - / 0.000                                            | - / 12.934                     | - / 13.480                     | - / 9.943                      | - / 12.472                             | - / 13.740                                                                    | - / 18.742                     | - / 149.828                    |  |
| <i>Subtotal: Support</i>                                                                              | - / 74.907                     | - / 11.652                     | - / 21.810                     | - / 23.132                     | - / -                                                | - / 23.132                     | - / 20.488                     | - / 20.368                     | - / 23.018                             | - / 23.978                                                                    | - / 89.586                     | - / 308.939                    |  |
| <b>Installation</b>                                                                                   |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| <i>Modification Item 1 of 1:</i> 5F010/5F777 CANES - Afloat Non-MIP                                   | - / 499.292                    | - / 77.200                     | - / 117.308                    | - / 180.334                    | - / 0.000                                            | - / 180.334                    | - / 250.645                    | - / 160.100                    | - / 216.576                            | - / 188.256                                                                   | - / 1,333.333                  | - / 3,023.044                  |  |
| <i>Subtotal: Installation</i>                                                                         | - / 499.292                    | - / 77.200                     | - / 117.308                    | - / 180.334                    | - / -                                                | - / 180.334                    | - / 250.645                    | - / 160.100                    | - / 216.576                            | - / 188.256                                                                   | - / 1,333.333                  | - / 3,023.044                  |  |
| <b>Total</b>                                                                                          |                                |                                |                                |                                |                                                      |                                |                                |                                |                                        |                                                                               |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                              | <b>1,155.405</b>               | <b>207.730</b>                 | <b>320.600</b>                 | <b>404.726</b>                 | <b>0.000</b>                                         | <b>404.726</b>                 | <b>404.292</b>                 | <b>378.547</b>                 | <b>439.976</b>                         | <b>406.761</b>                                                                | <b>2,768.949</b>               | <b>6,486.986</b>               |  |

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|-------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                  |                                       |                                       |                                       |                                                      |                                       |                                       |                                            |                                                                               |                                       | <b>Date:</b> February 2018            |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                            |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |                                       |                                       |                                            | <b>Modification Number / Title:</b><br>1 / 5F010/5F777 CANES - Afloat Non-MIP |                                       |                                       |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                     |                                       |                                       |                                       |                                                      |                                       |                                       | <b>MDAP/MAIS Code:</b>                     |                                                                               |                                       |                                       |                                       |                                       |
| <b>Modification Item 1 of 1:</b> 5F010/5F777 CANES - Afloat Non-MIP                                         |                                       |                                       |                                       |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| <b>Manufacturer Information</b>                                                                             |                                       |                                       |                                       |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| Manufacturer Name: Multiple Vendors <sup>(4)</sup>                                                          |                                       |                                       |                                       |                                                      |                                       |                                       | Manufacturer Location: Various             |                                                                               |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 1                                                              |                                       |                                       |                                       |                                                      |                                       |                                       | Production Leadtime <i>(in Months)</i> : 6 |                                                                               |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                                | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                       | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                             |                                                                               |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                              | Jan 2017                              | Nov 2017                              | Nov 2018                              |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                              | Jul 2017                              | May 2018                              | May 2019                              |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| Manufacturer Name: Multiple Vendors <sup>(5)</sup>                                                          |                                       |                                       |                                       |                                                      |                                       |                                       | Manufacturer Location: Various             |                                                                               |                                       |                                       |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 1                                                              |                                       |                                       |                                       |                                                      |                                       |                                       | Production Leadtime <i>(in Months)</i> : 4 |                                                                               |                                       |                                       |                                       |                                       |
| <b>Dates</b>                                                                                                | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                                       | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                             |                                                                               |                                       |                                       |                                       |                                       |
| Contract Dates                                                                                              | Jan 2017                              | Nov 2017                              | Nov 2018                              |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| Delivery Dates                                                                                              | May 2017                              | Mar 2018                              | Mar 2019                              |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| <b>Installation Information</b>                                                                             |                                       |                                       |                                       |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Afloat 5F010/5F777 (Non-MIP) |                                       |                                       |                                       |                                                      |                                       |                                       |                                            |                                                                               |                                       |                                       |                                       |                                       |
| <b>Installation Cost</b>                                                                                    | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                  | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                             | <b>FY 2021</b>                                                                | <b>FY 2022</b>                        | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                                             | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>      | <i>Qty (Each) / Total Cost (\$ M)</i>                                         | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| Prior Years                                                                                                 | 68 / 492.077                          | 5 / 36.371                            | - / -                                 | - / -                                                | - / -                                 | - / -                                 | - / -                                      | - / -                                                                         | - / -                                 | - / -                                 | 0 / 0.000                             | 73 / 528.448                          |
| FY 2017                                                                                                     | - / -                                 | 3 / 19.349                            | 10 / 72.981                           | - / -                                                | - / -                                 | - / -                                 | - / -                                      | - / -                                                                         | - / -                                 | - / -                                 | 0 / 0.000                             | 13 / 92.330                           |
| FY 2018                                                                                                     | - / -                                 | - / -                                 | - / -                                 | 22 / 140.143                                         | 0 / 0.000                             | 22 / 140.143                          | - / -                                      | - / -                                                                         | - / -                                 | - / -                                 | 0 / 0.000                             | 22 / 140.143                          |
| FY 2019                                                                                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                                | - / -                                 | - / -                                 | 20 / 128.856                               | - / -                                                                         | - / -                                 | - / -                                 | 0 / 0.000                             | 20 / 128.856                          |
| FY 2020                                                                                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                                | - / -                                 | - / -                                 | - / -                                      | 17 / 95.433                                                                   | - / -                                 | - / -                                 | 0 / 0.000                             | 17 / 95.433                           |
| FY 2021                                                                                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                                | - / -                                 | - / -                                 | - / -                                      | - / -                                                                         | 20 / 98.614                           | - / -                                 | 0 / 0.000                             | 20 / 98.614                           |
| FY 2022                                                                                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                                | - / -                                 | - / -                                 | - / -                                      | - / -                                                                         | - / -                                 | 11 / 49.951                           | 0 / 0.000                             | 11 / 49.951                           |
| FY 2023                                                                                                     | - / -                                 | - / -                                 | - / -                                 | - / -                                                | - / -                                 | - / -                                 | - / -                                      | - / -                                                                         | - / -                                 | - / -                                 | 9 / 38.293                            | 9 / 38.293                            |
| To Complete                                                                                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                | - / -                                 | - / -                                 | - / -                                      | - / -                                                                         | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| <b>Total</b>                                                                                                | 68 / 492.077                          | 8 / 55.720                            | 10 / 72.981                           | 22 / 140.143                                         | 0 / 0.000                             | 22 / 140.143                          | 20 / 128.856                               | 17 / 95.433                                                                   | 20 / 98.614                           | 11 / 49.951                           | 9 / 38.293                            | 185 / 1,172.068                       |

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|---------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|------------------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------|----------------------------|--------------------------------|-----------|-----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                          |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               | <b>Date:</b> February 2018 |                                |           |                 |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                    |            |                                |           |                                |           |                                |           |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |                                |           |                                |           |                                |                        |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / 5F010/5F777 CANES - Afloat Non-MIP |                            |                                |           |                 |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                             |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                | <b>MDAP/MAIS Code:</b> |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> 5F010/5F777 CANES - Afloat Non-MIP                                                 |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
| <b>Installation Information</b>                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Afloat 5F010/5F777 (Non-MIP)         |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
|                                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                 |                                                      |                                |           | <b>FY 2020</b>                 |           |                                |                        | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                                                                |                            |                                |           | <b>FY 2023</b>  |           |           |           |           |            |
|                                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b>              | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                     | <b>Q2</b>                  | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>       | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                                                  | 62         | 6                              | 2         | 1                              | 4         | 2                              | 3         | 3                              | 3         | 2                              | 11                                                   | 5                              | 4         | 2                              | 10        | 2                              | 6                      | 3                              | 6         | 5                              | 3         | 3                                                                             | 9                          | 5                              | 3         | 3               | 3         | 3         | 2         | 9         | 185        |
| Out                                                                                                                 | 52         | 8                              | 8         | 2                              | 1         | 4                              | 2         | 3                              | 3         | 3                              | 2                                                    | 11                             | 5         | 4                              | 2         | 10                             | 2                      | 6                              | 3         | 6                              | 5         | 3                                                                             | 3                          | 9                              | 5         | 3               | 3         | 3         | 3         | 11        | 185        |
|                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Afloat Technical Insertion (Non-MIP) |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                            |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                      | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |           | <b>FY 2021</b>                 |                        | <b>FY 2022</b>                 |           | <b>FY 2023</b>                 |           | <b>To Complete</b>                                                            |                            | <b>Total</b>                   |           |                 |           |           |           |           |            |
|                                                                                                                     |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                |                            | Qty (Each) / Total Cost (\$ M) |           |                 |           |           |           |           |            |
| Prior Years                                                                                                         |            | - / -                          |           | 3 / 6.736                      |           | - / -                          |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                          |                        | - / -                          |           | - / -                          |           | 0 / 0.000                                                                     |                            | 3 / 6.736                      |           |                 |           |           |           |           |            |
| FY 2017                                                                                                             |            | - / -                          |           | 2 / 14.744                     |           | 9 / 44.327                     |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                          |                        | - / -                          |           | - / -                          |           | - / -                                                                         |                            | 0 / 0.000                      |           | 11 / 59.071     |           |           |           |           |            |
| FY 2018                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | 8 / 31.968                     |           | 0 / 0.000                      |                                                      | 8 / 31.968                     |           | - / -                          |           | - / -                          |                        | - / -                          |           | - / -                          |           | - / -                                                                         |                            | 0 / 0.000                      |           | 8 / 31.968      |           |           |           |           |            |
| FY 2019                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 8.223                      |           | 0 / 0.000                      |                                                      | 1 / 8.223                      |           | 24 / 95.057                    |           | - / -                          |                        | - / -                          |           | - / -                          |           | - / -                                                                         |                            | 0 / 0.000                      |           | 25 / 103.280    |           |           |           |           |            |
| FY 2020                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | 6 / 26.732                     |           | 7 / 16.740                     |                        | - / -                          |           | - / -                          |           | - / -                                                                         |                            | 0 / 0.000                      |           | 13 / 43.472     |           |           |           |           |            |
| FY 2021                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                          |                        | 10 / 47.927                    |           | 17 / 66.547                    |           | - / -                                                                         |                            | 0 / 0.000                      |           | 27 / 114.474    |           |           |           |           |            |
| FY 2022                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                          |                        | - / -                          |           | 13 / 51.415                    |           | 23 / 92.813                                                                   |                            | 0 / 0.000                      |           | 36 / 144.228    |           |           |           |           |            |
| FY 2023                                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                          |                        | - / -                          |           | - / -                          |           | 12 / 45.492                                                                   |                            | 23 / 69.920                    |           | 35 / 115.412    |           |           |           |           |            |
| To Complete                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                          |                        | - / -                          |           | - / -                          |           | - / -                                                                         |                            | 403 / 1,225.120                |           | 403 / 1,225.120 |           |           |           |           |            |
| Total                                                                                                               |            | - / -                          |           | 5 / 21.480                     |           | 9 / 44.327                     |           | 9 / 40.191                     |           | 0 / 0.000                      |                                                      | 9 / 40.191                     |           | 30 / 121.789                   |           | 17 / 64.667                    |                        | 30 / 117.962                   |           | 35 / 138.305                   |           | 426 / 1,295.040                                                               |                            | 561 / 1,843.761                |           |                 |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                |                                                      |                                |           |                                |           |                                |                        |                                |           |                                |           |                                                                               |                            |                                |           |                 |           |           |           |           |            |
|                                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                 |                                                      |                                |           | <b>FY 2020</b>                 |           |                                |                        | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                                                                |                            |                                |           | <b>FY 2023</b>  |           |           |           |           |            |
|                                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b>              | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                     | <b>Q2</b>                  | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>       | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                                                  | -          | -                              | 2         | -                              | 3         | -                              | 4         | 2                              | 3         | 1                              | 3                                                    | 1                              | 4         | 7                              | 9         | 8                              | 6                      | -                              | 4         | 3                              | 10        | 2                                                                             | 12                         | 3                              | 13        | 2               | 16        | 5         | 12        | 426       | 561        |
| Out                                                                                                                 | -          | -                              | -         | 2                              | -         | 3                              | -         | 4                              | 2         | 3                              | 1                                                    | 3                              | 1         | 4                              | 7         | 9                              | 8                      | 6                              | -         | 4                              | 3         | 10                                                                            | 2                          | 12                             | 3         | 13              | 2         | 16        | 5         | 438       | 561        |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                      | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES | <b>Modification Number / Title:</b><br>1 / 5F010/5F777 CANES - Afloat Non-MIP |

|                                                         |                        |
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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** 5F010/5F777 CANES - Afloat Non-MIP

#### Installation Information

**Method of Implementation:** [none specified]:: Installation Name: CANES - Service Life Extension Program (SLEP) (Non-MIP)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 8 / 7.215                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 8 / 7.215                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 8 / 7.215                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 8 / 7.215                      |

#### Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 8   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 8   |
| Out | 8   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 8   |

|                                                                                                    |                                  |
|----------------------------------------------------------------------------------------------------|----------------------------------|
| <b>Method of Implementation (Organic):</b> CANES - Afloat First Articles (Non-MIP) - Not Installed | <b>Installation Quantity:</b> 13 |
|----------------------------------------------------------------------------------------------------|----------------------------------|

#### Footnotes:

(1) - CANES Afloat installations are conducted across several fleet concentration areas supported by six installation Multiple Award Contract (MAC) holders. The SPAWAR Fleet Readiness Directorate (FRD) Installation Organization (FIO) has ensured sufficient Alteration Installation Teams (AIT) resources are available to meet the FY19 - 23 CANES installation plan. - CANES Afloat production units require an additional 4 months after delivery for integration, assembly and testing prior to installation start. Installations do not begin until 10 months after contract award (6 months production lead time (PLT) + 4 months integration). Total lead time, including admin lead time, is 11 months. - The procurement average unit cost fluctuation is due to variance in system configuration requirements for each CANES platform type. Furthermore, because CANES production units and installations are procured through separate multiple award contracts, there are unit cost fluctuations associated with the contracting process. A CANES unit level platform (DDG/CG/LSD) requires a smaller system, supporting fewer users and applications than force level platforms with a greater number of users and applications. For example, a CANES DDG design consists of 18 equipment racks and ~400 workstations, while a CANES CVN system consists of 48 equipment racks and ~3000 workstations. The average procurement cost (hardware, software, integration, and engineering support) for a unit level ship ranges from \$5.2M to \$7.5M, while the average procurement cost for a force level platform ranges from \$11.8M to \$15.6M, and submarine unit procurement costs range from \$2.7M to \$4.6M. These costs include both the MIP and non-MIP components of the CANES units. - Installation cost fluctuations are attributed to and dependent on ship class, variant of predecessor system the hull currently has installed. As an example of variant differences, if a CVN has an ISNS Delta variant installed, a CANES installation is estimated to be \$18.2M. If that same

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                      | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES | <b>Modification Number / Title:</b><br>1 / 5F010/5F777 CANES - Afloat Non-MIP |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                      | <b>MDAP/MAIS Code:</b>                                                        |
| <p>CVN had a legacy Asynchronous Transfer Mode Local Area Network (ATM LAN) the CANES installation is estimated to be \$22.4M. This cost is driven by a number of issues such as the requirement for new or additional wiring, plugs, configurations changes. - The decrease in production unit cost from FY18 to FY19 is due to a dramatically lower percentage of more expensive Force Level units in FY19 compared to FY18.</p> <p>(2) - CANES technical insertion installations are conducted across several fleet concentration areas supported by six installation Multiple Award Contract (MAC) holders. The SPAWAR Fleet Readiness Directorate (FRD) Installation Organization (FIO) has ensured sufficient Alteration Installation Teams (AIT) resources are available to meet the FY19 - 23 CANES installation plan. - CANES Afloat technical insertion units require an additional 3 months after delivery for operational integration, assembly and testing prior to installation start. Installations do not begin until 7 months after contract award (4 months production lead time (PLT) + 3 months integration). Total lead time, including admin lead time, is 8 months. - The decrease in production unit cost from FY18 to FY19 is due to a dramatically lower percentage of more expensive Force Level units in FY19 compared to FY18.</p> <p>(3) CANES first articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. First articles are separate from production units and must be bought prior to the procurement of the corresponding production units. Procurement Lead Time (PLT) is 8 months for First Articles (DDG, CVN, submarines, etc). All following production articles of the same variant require a PLT of 6 months. CANES First Articles are not installed. Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. A DDG/CG/LSD (unit level platforms) has fewer users and runs fewer applications than a LHD/CVN/LPD (force level platforms). Force level platforms are larger in scale compared to the unit level ships and represent a super set of users, applications and connected systems.</p> <p>(4) CANES: Full Production Contract has 7 possible vendors on MAC award: Northrop Grumman Systems Corp, BAE Sytems Technology Solutions &amp; Services, General Dynamics C4 Systems, Global Technical Systems, SERCO, Inc, CGI Federal Inc, DRS Laurel Technologies. Contract will be used for both production and tech refresh units</p> <p>(5) CANES: Full Production Contract has 7 possible vendors on MAC award: Northrop Grumman Systems Corp, BAE Sytems Technology Solutions &amp; Services, General Dynamics C4 Systems, Global Technical Systems, SERCO, Inc, CGI Federal Inc, DRS Laurel Technologies. Contract will be used for both production and tech refresh units</p> |                                                      |                                                                               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                     |                                                      |                      |                        |                |                | <b>Date:</b> February 2018                                                    |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / 5F010/5F776 CANES - Ashore Non-MIP |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                     |                                                      |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                               |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                   | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                   | -                                                    | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 9.357              | 0.000          | 2.154          | 18.301              | 0.000                                                | 18.301               | 24.023                 | 15.986         | 1.912          | 7.977                                                                         | 112.835            | 192.545        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                    | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 9.357              | 0.000          | 2.154          | 18.301              | 0.000                                                | 18.301               | 24.023                 | 15.986         | 1.912          | 7.977                                                                         | 112.835            | 192.545        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                    | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>9.357</b>       | <b>0.000</b>   | <b>2.154</b>   | <b>18.301</b>       | <b>0.000</b>                                         | <b>18.301</b>        | <b>24.023</b>          | <b>15.986</b>  | <b>1.912</b>   | <b>7.977</b>                                                                  | <b>112.835</b>     | <b>192.545</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     |                                                      |                      |                        |                |                |                                                                               |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                   | -                                                    | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                   | -                                                    | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| <b>Description:</b><br>The consolidation of existing Ashore Network programs of record designed to provide a single, agile, responsive Common Computing Environment (CCE) hardware and software suite which will host Command and Control, Warfare, Intelligence, Logistics, Business, and Education/Training applications and services for Maritime Operation Centers (MOC), Aegis Ashore (AA), and Technical Training Equipment (TTE) sites. CANES will provide complete Local Area Network (LAN) infrastructure and services inclusive of hardware, software, processing, storage, workstations, and tablets for all basic network services (email, web, chat, collaboration) at these sites. |                    |                |                |                     |                                                      |                      |                        |                |                |                                                                               |                    |                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                            |                                |                                |                                |                                |                                                      |                                |                                |                                |                                | <b>Date:</b> February 2018                                                    |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                      |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>2 / 5F010/5F776 CANES - Ashore Non-MIP |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                               |                                |                                |                                |                                |                                                      |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                               |                                |                                |  |
| <b>Models of Systems Affected:</b> Consolidated Afloat Networks & Enterprise Services (CANES) Non-MIP |                                |                                |                                |                                | <b>Modification Type:</b> TBD                        |                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0303138N                                        |                                |                                |  |
| <b>Financial Plan</b>                                                                                 | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                   | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                    |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| <b>Modification Item 1 of 1:</b> 5F010/5F776 CANES - Ashore Non-MIP                                   |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| B Kits                                                                                                |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| Recurring                                                                                             |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| 1.1.1) CANES - Ashore 5F010/5F776 (Non-MIP) - NonOrganic <sup>(6)</sup>                               | 2 / 3.637                      | - / -                          | 1 / 1.096                      | 3 / 10.731                     | - / -                                                | 3 / 10.731                     | 5 / 15.972                     | - / -                          | - / -                          | - / -                                                                         | - / 12.461                     | 11 / 43.897                    |  |
| 1.1.2) CANES - Ashore - Technical Insertion (Non-MIP) - NonOrganic                                    | - / -                          | - / -                          | - / -                          | 2 / 2.212                      | - / -                                                | 2 / 2.212                      | - / -                          | - / -                          | 1 / 1.104                      | 3 / 4.768                                                                     | 31 / 64.637                    | 37 / 72.721                    |  |
| <b>Subtotal: Recurring</b>                                                                            | - / 3.637                      | - / -                          | - / 1.096                      | - / 12.943                     | - / -                                                | - / 12.943                     | - / 15.972                     | - / -                          | - / 1.104                      | - / 4.768                                                                     | - / 77.098                     | - / 116.618                    |  |
| Non-Recurring                                                                                         |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| 1.2.1) CANES - Ashore First Articles (Non-MIP) - Organic <sup>(7)</sup>                               | 1 / 3.481                      | - / -                          | - / -                          | - / -                          | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | 1 / 3.481                      |  |
| <b>Subtotal: Non-Recurring</b>                                                                        | - / 3.481                      | - / -                          | - / -                          | - / -                          | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / 0.000                      | - / 3.481                      |  |
| <b>Subtotal: 5F010/5F776 CANES - Ashore Non-MIP</b>                                                   | 3 / 7.118                      | - / -                          | 1 / 1.096                      | 5 / 12.943                     | - / -                                                | 5 / 12.943                     | 5 / 15.972                     | - / -                          | 1 / 1.104                      | 3 / 4.768                                                                     | 31 / 77.098                    | 49 / 120.099                   |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                  | - / 7.118                      | - / -                          | - / 1.096                      | - / 12.943                     | - / -                                                | - / 12.943                     | - / 15.972                     | - / -                          | - / 1.104                      | - / 4.768                                                                     | - / 77.098                     | - / 120.099                    |  |
| <b>Support (All Modification Items)</b>                                                               |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| 2.1) CANES - Ashore Production Support (Non-MIP)                                                      | - / 0.129                      | - / -                          | - / 0.058                      | - / 0.681                      | - / -                                                | - / 0.681                      | - / 0.841                      | - / -                          | - / 0.058                      | - / 0.251                                                                     | - / 4.058                      | - / 6.076                      |  |
| 2.2) CANES - Ashore Design Services Agent (Non-MIP)                                                   | - / -                          | - / -                          | - / -                          | - / 0.565                      | - / -                                                | - / 0.565                      | - / 1.827                      | - / 2.043                      | - / -                          | - / -                                                                         | - / -                          | - / 4.435                      |  |
| <b>Subtotal: Support</b>                                                                              | - / 0.129                      | - / -                          | - / 0.058                      | - / 1.246                      | - / -                                                | - / 1.246                      | - / 2.668                      | - / 2.043                      | - / 0.058                      | - / 0.251                                                                     | - / 4.058                      | - / 10.511                     |  |
| <b>Installation</b>                                                                                   |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| <b>Modification Item 1 of 1:</b> 5F010/5F776 CANES - Ashore Non-MIP                                   | - / 2.110                      | - / 0.000                      | - / 1.000                      | - / 4.112                      | - / 0.000                                            | - / 4.112                      | - / 5.383                      | - / 13.943                     | - / 0.750                      | - / 2.958                                                                     | - / 31.679                     | - / 61.935                     |  |
| <b>Subtotal: Installation</b>                                                                         | - / 2.110                      | - / -                          | - / 1.000                      | - / 4.112                      | - / -                                                | - / 4.112                      | - / 5.383                      | - / 13.943                     | - / 0.750                      | - / 2.958                                                                     | - / 31.679                     | - / 61.935                     |  |
| <b>Total</b>                                                                                          |                                |                                |                                |                                |                                                      |                                |                                |                                |                                |                                                                               |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                              | 9.357                          | 0.000                          | 2.154                          | 18.301                         | 0.000                                                | 18.301                         | 24.023                         | 15.986                         | 1.912                          | 7.977                                                                         | 112.835                        | 192.545                        |  |

**UNCLASSIFIED**

|                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
|-------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|------------------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                  |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                           |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                            |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES |           |                                |           |                                |                                                      |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / 5F010/5F776 CANES - Ashore Non-MIP |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                               |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> 5F010/5F776 CANES - Ashore Non-MIP                                         |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: TBD (Competitive Procurement) <sup>(8)</sup>                                             |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                | Manufacturer Location: TBD (Competitive Procurement) |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 1                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 5           |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                       |           |                                |           | <b>FY 2020</b>                 |                                                      |                                |           | <b>FY 2021</b>                 |           |                                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                              |            |                                |           |                                |           | Feb 2018                       |           |                                |           | Nov 2018                                             |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                              |            |                                |           |                                |           | Jul 2018                       |           |                                |           | Apr 2019                                             |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Ashore 5F010/5F776 (Non-MIP) |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                    |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                   |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                                      | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                             |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                       |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                 |            | 2 / 2.110                      |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 2 / 2.110      |           |           |           |           |            |
| FY 2017                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                     |            | - / -                          |           | - / -                          |           | 1 / 1.000                      |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 1 / 1.000      |           |           |           |           |            |
| FY 2019                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 2.698                      |           | 0 / 0.000                                            |           | 1 / 2.698                      |           | 2 / 5.383                      |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 3 / 8.081      |           |           |           |           |            |
| FY 2020                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | 5 / 13.943                     |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 5 / 13.943     |           |           |           |           |            |
| FY 2021                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2023                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                |           | - / -                          |           | - / -                          |                                                      | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                                       |            | 2 / 2.110                      |           | - / -                          |           | 1 / 1.000                      |           | 1 / 2.698                      |           | 0 / 0.000                                            |           | 1 / 2.698                      |           | 2 / 5.383                      |                                                      | 5 / 13.943                     |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | 0 / 0.000                      |           | 11 / 25.134    |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                      |           |                                |           |                                |                                                      |                                |           |                                |           |                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                             | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                       |           |                                |           | <b>FY 2020</b>                 |                                                      |                                |           | <b>FY 2021</b>                 |           |                                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                             |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                            | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                     | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                          | 2          | -                              | -         | -                              | -         | -                              | -         | -                              | 1         | -                                                    | -         | -                              | 1         | 2                              | -                                                    | -                              | -         | 1                              | 4         | -                                                                             | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 11         |
| Out                                                                                                         | 2          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | 1                                                    | -         | -                              | -         | 1                              | 2                                                    | -                              | -         | -                              | 1         | 4                                                                             | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 11         |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                      | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES | <b>Modification Number / Title:</b><br>2 / 5F010/5F776 CANES - Ashore Non-MIP |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** 5F010/5F776 CANES - Ashore Non-MIP

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: CANES - Ashore - Technical Insertion (Non-MIP)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | 2 / 1.414                      | 0 / 0.000                      | 2 / 1.414                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 1.414                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 0.750                      | - / -                          | 0 / 0.000                      | 1 / 0.750                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 2.958                      | 0 / 0.000                      | 3 / 2.958                      |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 31 / 31.679                    | 31 / 31.679                    |
| Total             | - / -                          | - / -                          | - / -                          | 2 / 1.414                      | 0 / 0.000                      | 2 / 1.414                      | - / -                          | - / -                          | 1 / 0.750                      | 3 / 2.958                      | 31 / 31.679                    | 37 / 36.801                    |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | 2  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | 1  | -  | -       | -  | 3  | 31 | 37 |     |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 2       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | 1  | -       | -  | -  | 34 | 37 |     |

|                                                                                                    |                                 |
|----------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Method of Implementation (Organic):</b> CANES - Ashore First Articles (Non-MIP) - Not Installed | <b>Installation Quantity:</b> 1 |
|----------------------------------------------------------------------------------------------------|---------------------------------|

**Footnotes:**

<sup>(6)</sup> -Ashore procurement quantities are detailed as follows: Technical Training Equipment (TTE) - PY (2), FY18 (1), FY19-FY23 (0); Maritime Operation Center (MOC)(including Aegis Ashore) - FY17-FY18 (0); FY19(3), FY20 (5), FY21 (0). -A MOC is a fully operational system configuration. A TTE configuration is a subset of a MOC configuration. This scale difference accounts for the fluctuation in per unit costs across fiscal years commensurate with the procurement quantities outlined in above note. -TTE has no associated DSA requirements.

<sup>(7)</sup> Production Lead Time is 8 months for First Articles. First Articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. All following articles of the same variant require a Production Lead Time of 5 months for Ashore units and 6 months for afloat units. Total Ashore lead time, including 1 month Admin lead time and 4 months for integration, assembly and testing, is 10 months. Ashore production lead times require one month less than Afloat due to minimized shock and vibration requirements for shore facilities. CANES First Articles are not installed. First Article average unit cost fluctuations are attributable to variances in system configuration requirements among shore sites. A shore training unit (TTE) has fewer users and runs fewer applications than a shore Maritime Operations Center (MOC). MOCs are larger in scale compared to the shore training sites and represent a super set of users, applications and connected systems.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                      | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2915 / CANES | <b>Modification Number / Title:</b><br>2 / 5F010/5F776 CANES - Ashore Non-MIP |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                                      | <b>MDAP/MAIS Code:</b>                                                        |
| <div><sup>(8)</sup> FY2019 Contractor and location will be competed.</div>       |                                                      |                                                                               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                                                    |                     |                    |                      |                                                           |                |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                                                    |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC     |                |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                | <b>Program Elements for Code B Items:</b> 0708017N |                     |                    |                      | <b>Other Related Program Elements:</b> 0603542N, 0702856N |                |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                                                    |                     |                    |                      |                                                           |                |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                     | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                            | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -                                                  | -                   | -                  | -                    | -                                                         | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 53.882             | 8.092          | 10.718                                             | 8.175               | 0.000              | 8.175                | 8.269                                                     | 8.344          | 8.524          | 8.693                      | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -                                                  | -                   | -                  | -                    | -                                                         | -              | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 53.882             | 8.092          | 10.718                                             | 8.175               | 0.000              | 8.175                | 8.269                                                     | 8.344          | 8.524          | 8.693                      | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -                                                  | -                   | -                  | -                    | -                                                         | -              | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>53.882</b>      | <b>8.092</b>   | <b>10.718</b>                                      | <b>8.175</b>        | <b>0.000</b>       | <b>8.175</b>         | <b>8.269</b>                                              | <b>8.344</b>   | <b>8.524</b>   | <b>8.693</b>               | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                                                    |                     |                    |                      |                                                           |                |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -                                                  | -                   | -                  | -                    | -                                                         | -              | -              | -                          | -                  | -                 |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -                                                  | -                   | -                  | -                    | -                                                         | -              | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -                                                  | -                   | -                  | -                    | -                                                         | -              | -              | -                          | -                  | -                 |
| <p><b>Description:</b></p> <p>The FY 2019 funding request was reduced by \$.015 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> <p>The Radiation Detection, Indication and Computation (RADIAC) Program is responsible for providing radiation monitoring instruments that detect and measure ionizing radiation. These instruments are used on all Navy, Coast Guard and Military Sealift Command vessels, and at every Navy shore installation, in order to ensure the safety of personnel, continuity of operations in radiological or nuclear contingencies, and protection of the environment.</p> <p>[P40A / M2100 - Survey Meters]: M2100. Radiation survey meters, required by 10 CFR 20 and the Navy's mission, are used to detect, measure and monitor radiation levels in support of operations involving radioactive materials. Navy operations associated with radioactive materials include operation of nuclear reactors, maintenance on radioactive systems or components, testing of components for structural integrity (X-ray), research, and medical diagnostics and treatment. Additionally, radiation survey meters are used to search for, locate and intercept radioactive material, and in responding to casualties involving radioactive materials. Where radiation survey meters are used to support operations involving radioactive material, they provide real-time information used to control personnel radiation exposure and to identify and control the spread of radioactivity. When used to search for radioactive material, they provide an extremely reliable method of identifying radioactive material while minimizing the risk to personnel conducting these operations.</p> <p>[P40A / Radiological Detection System]: M2100, Radiological Detection System (RDS): This is a basic RADIAC instrument used in Consequence Management and Occupational Safety and Health applications by all ships (U.S. Navy, U.S. Coast Guard and Military Sealift Command) and shore commands. It is used to survey for radioactive surface contamination pursuant to nuclear plant operations or nuclear plant maintenance; following medical procedures involving radioactive isotopes; or casualties and events that release radioactivity into the environment such as after a nuclear reactor accident or the use of weapons involving nuclear devices or radioactivity. It is also used to perform surveys for various types of radiation in order to monitor environmental conditions in areas and spaces immediately adjacent to where radioactive material is stored or used during routine operations; where nuclear plant operations occur; and where radioisotopes are used for maintenance, such as during industrial radiography operations.</p> <p>The RDS consists of a control unit and a suite of probes that survey for different types of radioactivity (Alpha, Beta, Gamma, Neutron). The control unit is necessary for all applications but the four probes are used for different situations. That means the control unit will have the highest procurement objective and the four probes will be bought in varying quantities. The probes will be configured as a separate unit of issue and provided to customers dependent upon the intended end use.</p> |                    |                |                                                    |                     |                    |                      |                                                           |                |                |                            |                    |                   |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             | Date: February 2018                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             | P-1 Line Item Number / Title:<br>2920 / RADIAC     |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Program Elements for Code B Items: 0708017N | Other Related Program Elements: 0603542N, 0702856N |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                    |
| <p>This instrument will replace the Navy's 30-year old IM-265/PDQ Multi-Function RADIAC control unit and its ancillary probes, of which there are several thousand control units and probes in the inventory. The procurement will be phased over multiple years. The RDS is being developed by the Joint Project Manager, Radiological &amp; Nuclear Defense in order that the Army, Navy, Marine Corps and Air Force will have a Joint instrument that will enable interoperability and surge support of assets from all the components to forward deployed units.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                                    |
| <p>[P40A / M2100 NWCF Contract Service Fee]: M2100 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                                    |
| <p>[P40A / M2200 - Dosimetry]: M2200. Dosimetry consists of radiation sensitive materials that are used for detecting and measuring an individual's exposure to ionizing radiation and to aid in minimizing this exposure. Dosimetry is required to be worn by personnel who work with sources of radioactivity or by personnel responding to casualties involving radioactivity. Most dosimeters are small devices that are worn on the belt, on a lanyard around the neck or attached to a shirt. Some dosimeters provide direct readout enabling the wearer to monitor and control radiation exposure. Other types of dosimeters must be removed from the wearer to be evaluated in special dosimeter readers that extract the recorded radiation exposure value from the dosimeter. Radiation exposure measured by dosimetry is recorded in individual medical records when formal tracking of the radiation exposure is required.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                                    |
| <p>In accordance with 10 CFR 20, dosimetry is required to be worn by personnel who work with sources of radioactivity. In the Navy this includes personnel in the Nuclear Propulsion, Nuclear Weapons, and Medical and Radiological Affairs Support programs. In these programs radiation exposure is measured by dosimetry and recorded in individual medical records for tracking purposes. Dosimetry is also worn by personnel responding to casualties involving radioactivity to control their exposure within acceptable levels.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                                    |
| <p>[P40A / DT-702 Card]: M2200, DT-702 Card: The DT-702 Thermoluminescent Dosimeter (TLD) is a small metal card, a little smaller and thinner than a domino, that contains four circular slots containing different elements that are sensitive to various types of radioactivity. The card is placed in a plastic holder so it is protected and able to be worn by personnel on a lanyard or on their clothing. It is issued to sailors and civilians who are occupationally exposed to radiation. This includes Navy programs such as Nuclear Propulsion, Explosive Ordnance Disposal, Nuclear Weapons, Industrial Radiography and Medical. The DT-702 provides primary dosimetry, whereby dosage accumulated on this card can be entered into the respective person's permanent medical files. The processes associated with the DT-702 also are compliant with 10 CFR 20 by being approved by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards &amp; Technology (NIST). The cards are issued to individuals and tracked by serial numbers. The cards are periodically turned in (and another card is issued so there is no coverage gap) to have the dose extracted by an 8800 Reader. The process by which the cards are read include several heating cycles that eventually make the receptor elements unusable, so the life of a TLD is finite -- about 100 reads -- and then they have to be replaced. Cards are procured approximately every two to three years in order to achieve economic order quantity. Under the current contract the most cost effective price is achieved at no fewer than 20,000 units.</p> |                                             |                                                    |
| <p>[P40A / DT-702 Card Holder]: M2200, DT-702 Card Holder: A plastic case into which the DT-702 card is placed for the card's protection and so it can be worn on a lanyard or on a belt. It has four circular windows made of specific materials of various thickness to allow the proper filtration of radiation to the dosimeter elements under each of the windows.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                                    |
| <p>[P40A / Extremity Dosimeter]: M2200, Extremity Dosimeter: An extremity dosimeter is used to measure concentrated exposure to the hands when a radiation worker is reaching into a glove box or medical personnel are performing fluoroscopy tasks. This item is composed of three inexpensive pieces: 1) a plastic ring (\$2) to wear on a finger; 2) a dosimeter (\$36) that measures exposure; and 3) a cap that secures the dosimeter to the ring. The cap is made to a specific thickness depending on the type of radiation the dosimeter is intended to measure (\$3). These items will be procured in quantities of 3,000 each. An average unit cost for the three items is used and all 9,000 components are shown on this one Cost Element.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                                    |
| <p>[P40A / Battlefield Dosimeter]: M2200, Battlefield Dosimeter: A dosimeter designed for use during nuclear or radiological events involving high energy gamma and neutron irradiation. An "event" can be a nuclear reactor accident, such as the Fukushima disaster in 2011, or an attack on, e.g., a Carrier Strike Group using a nuclear or radiological (dirty bomb) weapon. The concept of operations for such a dosimeter is that it is issued at MOP (Military Operational Posture) III to allow the commander to manage the exposure received by members of recovery teams who would be deployed in order to maintain continuity of operations. It is also used to perform triage on casualties, allowing medical personnel to most effectively allocate their resources.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |                                                    |
| <p>[P40A / Battlefield Dosimeter Cases]: M2200, Battlefield Dosimeter Cases: The Battlefield Dosimeter will spend much of its time aboard ships stored in Damage Control Lockers. The instrument will also have to be shipped to and from a RADIAC Calibration Laboratory to undergo periodic calibrations. Because allowances for the instruments on the various ship classes range from 12 on an LCS to 700 each on a CVN, cases configured to hold different quantities (25, 50, 100) will be procured to afford the necessary protection for storage and shipping while maximizing shipboard storage space efficiency.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                             |                                                    |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                    | <b>Date:</b> February 2018                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                    | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Program Elements for Code B Items:</b> 0708017N | <b>Other Related Program Elements:</b> 0603542N, 0702856N |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |                                                           |
| <p>With the final delivery order executed on 29 September 2017, 118 cases in two size configurations were ordered using budgeted FY17 funds.</p> <p>[P40A / Battlefield Dosimeter Data &amp; Training]: M2200, Battlefield Dosimeter Data &amp; Training: The Technical Data Package includes the Technical Manual, Technical Repair Standard, Standard Calibration Procedure, Product Drawings, Electronic Magnetic Interference &amp; Prompt Nuclear Test Report. These documents are needed to maintain, repair and calibrate the IM-276A/PD. The test report will provide the needed objective quality evidence showing compliance)prior to delivery of the dosimeters.</p> <p>The Data Acquisition System/Calibration Software includes the hardware and calibration software used to calibrate, configure, assign, reset and re-zero the IM-276A/PD. This software will then be submitted for NMCI certification and DADMS approval and pushed to the calibration laboratories.</p> <p>Training will be conducted at a Navy RADIAC Calibration Laboratory for technicians who are responsible for the maintenance and repair of equipment. Training will include a review of the repairable parts and step-by-step instruction on how to perform the standard calibration procedure the technicians will employ to keep the equipment adjusted to specified tolerances.</p> <p>[P40A / Electronic Personal Dosimeter]: M2200, Electronic Personal Dosimeter (EPD): An electronic dosimeter that includes a real-time digital display of radiation dose being received. These so-called secondary dosimeters are normally used in conjunction with the DT-702 primary dosimeter in order to provide the wearer with real-time radiation dose information and alarm features that aid workers in controlling their radiation exposure. The DT-702 (Cost Element 2.1) is the Navy's approved dosimeter to record dose of record in each individual's medical record, but it is a "passive" device; i.e., it does not immediately display the dose being received. Instead, the dose is stored on the card on four different elements. It must be turned in and read by a machine (the 8800 Reader), a process that takes weeks, and therefore does not indicate if the wearer is in imminent danger.</p> <p>[P40A / M2200 NWCF Contract Service Fee]: M2200 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p> <p>[P40A / M2400 - Other RADIAC]: M2400. Other RADIAC. The RADIAC Program fields 70 different families of instruments, consisting of a total of almost 43,000 instruments and 400,000 dosimeters. Those families that fall into similar functionality have been grouped here into the M2100, M2200, M2500 and M2600 Cost Codes. The M2400 Cost Code consists of instruments that have specialized functions that only they perform, and therefore would require an unmanageable and meaningless number of additional Cost Codes if each were addressed individually. In the context of the family metaphor used here, these instruments are no less important but are orphans in the sense there are not many of similar functionality with which they could be grouped.</p> <p>This Cost Code also supports replenishment of Ready for Issue (RFI) stocks when instruments in any Cost Code fall below stock levels sufficient to meet quarterly demand. This Cost Element (Spares) is a Continuing element that varies year-to-year based on emergent requirements and the quantity and unit cost of the item(s) being replenished.</p> <p>[P40A / Spares]: M2400, Spares: Purchase of additional quantities of existing models of RADIACs to replenish or supplement stocks of spare items due to minor increases in program allowances, inventory losses, or due to items being beyond economical repair.</p> <p>[P40A / M2400 NWCF Contract Service Fee]: M2400 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p> <p>[P40A / M2500 - Air Sampling Systems]: M2500. Monitoring for airborne radioactivity is done to detect leaks from nuclear reactors or associated systems to ensure that radioactivity is not inadvertently released to the environment from these operations. Additionally, monitoring for airborne radioactivity is performed during maintenance on radioactive components or during events that might cause radioactivity to be released to the air. Monitoring for airborne radioactivity is normally done by drawing air across filter paper to collect airborne radioactive particles. This filter paper is then evaluated by radiation detectors and the concentration of airborne radioactivity is calculated. The types of airborne radioactivity monitoring systems include fixed systems and portable systems.</p> |                                                    |                                                           |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                    | <b>Date:</b> February 2018                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Program Elements for Code B Items:</b> 0708017N | <b>Other Related Program Elements:</b> 0603542N, 0702856N |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| <p>Fixed systems sample air from pre-determined locations and normally include built-in radiation detectors for determining the airborne radioactivity concentration. Portable systems can be used to sample air at any desired location, but normally require the use of separate radiation detection instruments to measure the radioactive particles deposited on the filter paper to determine the airborne radioactivity concentration.</p> <p>[P40A / Air Particle Detector (APD) Ship Frames]: M2500, Air Particle Detector (APD), Ship, Frames: Government Furnished Material (GFM) to be provided to the manufacturer of the APD Ship (IM-272/WDQ). This material consists of the housing and specific internal components from the IM-239/WDQ. The housings and identified internal components from the IM-239/WDQ will be prepared in the depot level maintenance facility for the APD and provided to the manufacturer of the IM-272/WDQ. Use of these housings and components reduces the overall cost of the IM-272/WDQ and avoids the cost of a ship alteration by ensuring the IM-272/WDQ will have the same shipboard footprint as the IM-239/WDQ.</p> <p>[P40A / APD Ship]: M2500, Air Particle Detector, Ship: Airborne radioactivity monitoring system that is required for use on CVNs and all submarines. This system (IM-272/WDQ) is a replacement for the existing IM-239/WDQ used on all Navy nuclear ships. The IM-272/WDQ incorporates significant technology enhancements that will reduce spurious false alarms and reduce operator maintenance.</p> <p>[P40A / APD Ship Engineering Change Proposal]: M2500, APD Ship Engineering Change Proposal (ECP): Naval Reactors has directed an ECP be designed and incorporated that will reduce noise and vibration for the IM-272/WDQ in order to meet (classified) specifications for the COLUMBIA class submarines.</p> <p>[P40A / APD Ship Provisioning]: M2500, APD Ship Provisioning: The contractor shall host a provisioning conference at which the equipment will be broken down to Source, Maintenance and Recoverability (SM&amp;R) codes and where maintenance philosophies will be established for each part for the acoustic upgrade model.</p> <p>[P40A / APD Ship Data]: M2500, Air Particle Detector, Ship Data: This data includes a one-time cost for Technical Manuals in FY18 for the acoustic model. Subsequent years include the Technical Repair Standard, drawings, and production reports with every delivery order.</p> <p>[P40A / APD Ship Initial Spare Parts]: M2500, Air Particle Detector, Ship, Initial Spare Parts: In FY17 procure initial spare parts to support fielding. In FY19, procure two Flow Meter Test Sets. In FY21, procure parts kits to upgrade 10 of the initial 40 units procured in FY14 to the new acoustic standard directed by Naval Reactors.</p> <p>[P40A / APD Ship Upgrade Kit]: M2500, APD Ship Upgrade Kit: The Navy procured the first lot of IM-272 APDs in FY14. Subsequent to that delivery order an Engineering Change Proposal was directed by Naval Reactors in order to accommodate more stringent acoustic specifications for the COLOMBIA class submarines. Ten of the IM-272 will be retrofitted with new parts to upgrade them to the IM-272A model.</p> <p>[P40A / APD Ship Training]: M2500, APD Ship Training: The vendor will provide maintenance and repair training for Navy technicians at two Government sites. One site will be at the IM-272's depot level maintenance facility at PSNSY&amp;IMF, and the other at the RADIAC Calibration Laboratory that provides fleet support for the equipment. The sessions will be professionally filmed for distribution to the fleet to assist ships' force sailors to learn how to perform trouble shooting and basic maintenance.</p> <p>[P40A / APD Shore]: M2500, Air Particle Detector (APD) Shore: This system is a replacement for the existing IM-239/WDQ designed for ships that is also currently used in radiological maintenance facilities ashore. The APD Shore incorporates significant technology enhancements that will reduce spurious false alarms and reduce operator maintenance, and since it does not need to be hardened for shipboard use, it will be cheaper to procure and maintain than the new IM-272/WDQ units (Cost Element 4.2) being procured for ships.</p> <p>[P40A / Air Particle Sampler]: M2500, Air Particle Sampler: Portable airborne radioactivity sampling system. Used during radiological work or during radiological casualties to draw air across a filter paper to collect radioactive particles. The filter paper is then evaluated using separately provided radiation detectors to determine the concentration of airborne radioactivity.</p> <p>[P40A / Tritium Monitor]: M2500, Tritium Monitor: The AN/PDR-73 Tritium Monitor is used at nuclear weapons storage facilities and research laboratories to sample the air for the presence of tritium, which is a toxic radiation hazard if inhaled. The current instrument is 30 years old and cannot be repaired due to obsolete components. At the current loss rate due to normal wear and tear there will be insufficient assets to meet operational requirements, so a replacement must be procured.</p> |                                                    |                                                           |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             | Date: February 2018                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             | P-1 Line Item Number / Title:<br>2920 / RADIAC     |
| ID Code (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Program Elements for Code B Items: 0708017N | Other Related Program Elements: 0603542N, 0702856N |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             |                                                    |
| <p>[P40A / Tritium Monitor Testing, Data, Parts &amp; Training]: M2500, Tritium Monitor Initial Spare Parts Testing, Data &amp; Training: In FY17 procure Electro Magnetic Interference testing, Technical Manuals, and Technical Repair Standard. In FY19 procure initial spare parts to support fielding and factory training of RADIAC Calibration Laboratory Electronic Technicians and program engineers.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                                    |
| <p>[P40A / M2500 NWCF Contract Service Fee]: M2500 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |                                                    |
| <p>[P40A / M2600 - Laboratory Test Equipment]: M2600. This Cost Code supports specialized equipment usually found in laboratories, hospitals and test facilities. This kind of equipment is distinct enough to warrant separating it for management purposes from the M2400 Cost Code.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                                    |
| <p>[P40A / Calibrators]: M2600, Calibrators: Calibrators are the basic tool used to calibrate all Navy radiological detection equipment. They consist of a high energy radiological source (Cs-137) in a shielded container that is located in a specially constructed room, or "range." A technician places the instrument to be calibrated at a specific calibration point in the range and remotely operates the calibrator by raising the source out of its container so that the radiological source becomes exposed and it irradiates the instrument. The instrument's response to the radiation is measured so that it can be calibrated to specific tolerances. The current suite of AN/UDM-1B calibrators is over 30 years old, and the natural decay of the strength of the radioactive source over time restricts calibration effectiveness by limiting the scale of calibration points below American National Standards Institute (ANSI) requirements that are followed in accordance with Navy policy. Also, due to the age of the calibrators, there are several parts no longer supported by the manufacturer, and a malfunctioning calibrator (e.g., where the source gets stuck in the exposed position) poses a very high safety risk.</p> |                                             |                                                    |
| <p>[P40A / Calibrator Initial Spare Parts &amp; Training]: M2600, Calibrator Initial Spare Parts &amp; Training: Initial spare parts and vendor training at each of the seven RADIAC Calibration Laboratories where the equipment will be installed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                                    |
| <p>[P40A / M2600 NWCF Contract Service Fee]: M2600 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |                                                    |
| <p>[P40A / M2830 - Support - Production Engineering]: M2830, Production Engineering: Labor cost of the government and contractor personnel who prepare the acquisitions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                                    |
| <p>[P40A / Production Engineering Carderock]: M2830, Production Engineering: Labor cost of the government Engineers, Health Physicists, Scientists and others who prepare the acquisitions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                             |                                                    |
| <p>[P40A / Production Engineering ISEA]: M2830, Production Engineering In Service Engineering Agent (ISEA): Labor cost of the contractor Engineers, Logisticians, Technical Writer, Program Analyst, and Systems Analysts who help prepare the acquisitions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                    |
| <p>A new contract was awarded in FY17 with a new alignment of engineering and logistical support that resulted in a spike in FY17 to address work backlog and a slightly higher annual outlay thereafter than previously budgeted in order to sustain requirements at an acceptable level.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                             |                                                    |
| <p>[P40A / M2830 NWCF Contract Service Fee]: M2830 NWCF Contract Service Fee: The PCO for acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code services acquisition.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                                    |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       |                    |                                                    |                       |                                              |                                                           |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                       |                    |                                                    |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC     |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                       |                    | <b>Program Elements for Code B Items:</b> 0708017N |                       |                                              | <b>Other Related Program Elements:</b> 0603542N, 0702856N |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |                    |                                                    |                       |                                              |                                                           |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                       |                    |                                                    |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                            | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b>                                       | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>              | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | RADIAC                                | P-5a               |                                                    |                       | - / 53.882                                   | - / 8.092                                                 | - / 10.718                                   | - / 8.175                                    | - / -                                        | - / 8.175                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Total Gross/Weapon System Cost</b> |                    |                                                    |                       | <b>- / 53.882</b>                            | <b>- / 8.092</b>                                          | <b>- / 10.718</b>                            | <b>- / 8.175</b>                             | <b>- / 0.000</b>                             | <b>- / 8.175</b>                             |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |                    |                                                    |                       |                                              |                                                           |                                              |                                              |                                              |                                              |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                       |                    |                                                    |                       |                                              |                                                           |                                              |                                              |                                              |                                              |
| <p><b>Justification:</b><br/>           Title 10 of the Code of Federal Regulations, Part 20 (10 CFR 20) requires RADIAC instruments be used to ensure the safety of personnel who work with or who are exposed to radioactive materials in their work. Additionally, the Navy's mission requires personnel and ships to have the ability to operate in radiological environments and the ability to identify and interdict radiological Weapons of Mass Destruction (WMD). Navy programs that require RADIAC instruments for Occupational Safety &amp; Health (OSH) reasons under the provisions of 10 CFR 20 include Naval Nuclear Propulsion, Nuclear Weapons, Medical, and Radiological Affairs Support. Non-OSH programs include Radiological Defense, Consequence Management, Training, Technical (RADIAC calibration, shielding evaluation, research) and Radiological Search (maritime interdiction to locate or intercept WMD).</p> |                                       |                    |                                                    |                       |                                              |                                                           |                                              |                                              |                                              |                                              |



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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |            |                   |                                                |            |                   |                |            |                   |                | Date: February 2018               |                   |                |            |                   |  |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|-----------------------------------|-------------------|----------------|------------|-------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10   |       |                |                |            |                   |                |            |                   | P-1 Line Item Number / Title:<br>2920 / RADIAC |            |                   |                |            |                   |                | Aggregated Items Title:<br>RADIAC |                   |                |            |                   |  |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018                                        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                   |                   | FY 2019 Total  |            |                   |  |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                 | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                        | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |  |
| 2) M2200 - Dosimetry                                                        |       |                |                |            |                   |                |            |                   |                                                |            |                   |                |            |                   |                |                                   |                   |                |            |                   |  |
| 2.1) DT-702 Card <sup>(†)</sup>                                             | A     |                | 26.60          | 145,000    | 3.857             | -              | -          | -                 | -                                              | -          | -                 | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 2.2) DT-702 Card Holder <sup>(†)</sup>                                      | A     |                | 18.34          | 35,000     | 0.642             | -              | -          | -                 | 20.00                                          | 25,000     | 0.500             | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 2.3) Extremity Dosimeter <sup>(†)</sup>                                     | A     |                | 11.75          | 12,000     | 0.141             | 13.66          | 9,000      | 0.123             | -                                              | -          | -                 | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 2.4) Battlefield Dosimeter <sup>(1)(†)</sup>                                | A     |                | 174.02         | 29,434     | 5.122             | 227.00         | 2,266      | 0.514             | 232.00                                         | 10,275     | 2.384             | 236.00         | 9,175      | 2.165             | -              | -                                 | -                 | 236.00         | 9,175      | 2.165             |  |
| 2.5) Battlefield Dosimeter Cases <sup>(2)(†)</sup>                          | A     |                | 415.00         | 200        | 0.083             | 405.17         | 118        | 0.048             | 413.00                                         | 165        | 0.068             | 421.00         | 150        | 0.063             | -              | -                                 | -                 | 421.00         | 150        | 0.063             |  |
| 2.6) Battlefield Dosimeter Data & Training                                  | A     |                | -              | -          | -                 | -              | -          | -                 | -                                              | -          | 0.190             | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 2.7) Electronic Personal Dosimeter <sup>(3)(†)</sup>                        | A     |                | 258.72         | 16,338     | 4.227             | 463.00         | 2,000      | 0.926             | -                                              | -          | -                 | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 2.8) M2200 NWCF Contract Service Fee                                        | A     |                | -              | -          | 0.285             | -              | -          | 0.080             | -                                              | -          | 0.344             | -              | -          | 0.133             | -              | -                                 | -                 | -              | -          | 0.133             |  |
| Subtotal: 2) M2200 - Dosimetry                                              |       |                | -              | -          | 14.357            | -              | -          | 1.691             | -                                              | -          | 3.486             | -              | -          | 2.361             | -              | -                                 | -                 | -              | -          | 2.361             |  |
| 3) M2400 - Other RADIAC                                                     |       |                |                |            |                   |                |            |                   |                                                |            |                   |                |            |                   |                |                                   |                   |                |            |                   |  |
| 3.1) Spares                                                                 | A     |                | -              | -          | 6.891             | -              | -          | 0.244             | -                                              | -          | 0.096             | -              | -          | 0.100             | -              | -                                 | -                 | -              | -          | 0.100             |  |
| 3.2) M2400 NWCF Contract Service Fee <sup>(4)</sup>                         | A     |                | -              | -          | 0.173             | -              | -          | -                 | -                                              | -          | 0.003             | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| Subtotal: 3) M2400 - Other RADIAC                                           |       |                | -              | -          | 7.064             | -              | -          | 0.244             | -                                              | -          | 0.099             | -              | -          | 0.100             | -              | -                                 | -                 | -              | -          | 0.100             |  |
| 4) M2500 - Air Sampling Systems                                             |       |                |                |            |                   |                |            |                   |                                                |            |                   |                |            |                   |                |                                   |                   |                |            |                   |  |
| 4.1) Air Particle Detector (APD) Ship Frames <sup>(5)(†)</sup>              | A     |                | 6,745.00       | 200        | 1.349             | -              | -          | 0.042             | 11,840.00                                      | 50         | 0.592             | 7,362.00       | 60         | 0.442             | -              | -                                 | -                 | 7,362.00       | 60         | 0.442             |  |
| 4.2) APD Ship <sup>(6)(†)</sup>                                             | A     |                | 42,975.00      | 40         | 1.719             | 58,499.00      | 30         | 1.755             | 59,669.00                                      | 40         | 2.387             | 60,862.00      | 35         | 2.130             | -              | -                                 | -                 | 60,862.00      | 35         | 2.130             |  |
| 4.3) APD Ship Engineering Change Proposal                                   | A     |                | -              | -          | 0.198             | -              | -          | 0.584             | -                                              | -          | -                 | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 4.4) APD Ship Provisioning                                                  | A     |                | -              | -          | 0.334             | -              | -          | -                 | -                                              | -          | 0.040             | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |
| 4.5) APD Ship Data <sup>(7)</sup>                                           | A     |                | -              | -          | 1.396             | -              | -          | 0.164             | -                                              | -          | 0.600             | -              | -          | 0.135             | -              | -                                 | -                 | -              | -          | 0.135             |  |
| 4.6) APD Ship Initial Spare Parts <sup>(†)</sup>                            | A     |                | -              | -          | 0.097             | -              | -          | 0.783             | -                                              | -          | -                 | 125,000.00     | 2          | 0.250             | -              | -                                 | -                 | 125,000.00     | 2          | 0.250             |  |
| 4.7) APD Ship Upgrade Kit <sup>(†)</sup>                                    | A     |                | -              | -          | -                 | -              | -          | -                 | 20,000.00                                      | 10         | 0.200             | -              | -          | -                 | -              | -                                 | -                 | -              | -          | -                 |  |

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| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy</b> |  |  |  |  |  |                                                       |  |  |  |  |  | <b>Date:</b> February 2018               |  |  |  |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10   |  |  |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC |  |  |  |  |  | <b>Aggregated Items Title:</b><br>RADIAC |  |  |  |  |  |  |  |

| Item Number / Title [DODIC]                                  | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |            |                   | FY 2019 Total  |            |                   |
|--------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|
|                                                              |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 4.8) APD Ship Training                                       | A     |                | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | 0.100             | -              | -          | -                 | -              | -          | 0.100             |
| 4.9) APD Shore <sup>(†)</sup>                                | A     |                | 17,400.00      | 110        | 1.914             | 17,610.00      | 20         | 0.352             | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| 4.10) Air Particle Sampler <sup>(†)</sup>                    | A     |                | 1,232.14       | 280        | 0.345             | 1,307.00       | 200        | 0.261             | 1,320.48       | 367        | 0.485             | 1,319.59       | 367        | 0.484             | -              | -          | -                 | 1,319.59       | 367        | 0.484             |
| 4.11) Tritium Monitor (8)(†)                                 | A     |                | -              | -          | -                 | 19,500.00      | 50         | 0.975             | 13,447.00      | 100        | 1.345             | 17,894.00      | 50         | 0.895             | -              | -          | -                 | 17,894.00      | 50         | 0.895             |
| 4.12) Tritium Monitor Testing, Data, Parts & Training        | A     |                | -              | -          | -                 | -              | -          | 0.038             | -              | -          | -                 | -              | -          | 0.180             | -              | -          | -                 | -              | -          | 0.180             |
| 4.13) M2500 NWCF Contract Service Fee                        | A     |                | -              | -          | 0.312             | -              | -          | 0.252             | -              | -          | 0.613             | -              | -          | 0.215             | -              | -          | -                 | -              | -          | 0.215             |
| <b>Subtotal: 4) M2500 - Air Sampling Systems</b>             |       |                | -              | -          | <b>7.664</b>      | -              | -          | <b>5.206</b>      | -              | -          | <b>6.262</b>      | -              | -          | <b>4.831</b>      | -              | -          | -                 | -              | -          | <b>4.831</b>      |
| <b>5) M2600 - Laboratory Test Equipment</b>                  |       |                |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |
| 5.3) M2600 NWCF Contract Service Fee                         | A     |                | -              | -          | -                 | -              | -          | -                 | -              | -          | 0.005             | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| <b>Subtotal: 5) M2600 - Laboratory Test Equipment</b>        |       |                | -              | -          | <b>0.000</b>      | -              | -          | -                 | -              | -          | <b>0.005</b>      | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| <b>6) M2830 - Support - Production Engineering</b>           |       |                |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |                |            |                   |
| 6.1) Production Engineering Carderock                        | A     |                | -              | -          | 14.300            | -              | -          | 0.531             | -              | -          | 0.541             | -              | -          | 0.551             | -              | -          | -                 | -              | -          | 0.551             |
| 6.2) Production Engineering ISEA                             | A     |                | -              | -          | 10.462            | -              | -          | 0.420             | -              | -          | 0.325             | -              | -          | 0.332             | -              | -          | -                 | -              | -          | 0.332             |
| 6.3) M2830 NWCF Contract Service Fee (9)                     | A     |                | -              | -          | 0.035             | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -          | -                 |
| <b>Subtotal: 6) M2830 - Support - Production Engineering</b> |       |                | -              | -          | <b>24.797</b>     | -              | -          | <b>0.951</b>      | -              | -          | <b>0.866</b>      | -              | -          | <b>0.883</b>      | -              | -          | -                 | -              | -          | <b>0.883</b>      |
| <b>Total</b>                                                 |       |                | -              | -          | <b>53.882</b>     | -              | -          | <b>8.092</b>      | -              | -          | <b>10.718</b>     | -              | -          | <b>8.175</b>      | -              | -          | -                 | -              | -          | <b>8.175</b>      |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

**Footnotes:**

(1) M2200, Battlefield Dosimeter (BD): Subsequent to the Fukushima Daiichi nuclear plant incident in 2011, a capability gap was identified wherein ships in the deployed Battle Group were exposed to the lower levels of radiation normally associated with occupational radiological workers. This hampered the continuity of operations because the existing BD is designed to record and display exposure beginning only at 10 rem (roentgen equivalent in man), a level associated with the detonation of a nuclear weapon. This is a specification vestige of the Cold War. The millirem, which is one thousandth of a rem, is used to measure dosages encountered in daily life, such as the amount of radiation received from medical X-rays, long airplane flights, background sources, and the lower levels of radiation normally associated with occupational radiological work, during which workers are exposed on a continuous basis and why their exposures are closely monitored and recorded. To fill the gap, specifications were added to the new BD for a device that could provide real-time feedback of dose received at occupational levels. This procurement has been beset by technical delays due to manufacturing defects. In June 2016, the manufacturer self-identified that their manufacturing process of Direct Ion Storage chambers was defective and producing only 30% yield of functionally acceptable detectors. At that rate, they could not be profitable nor meet the contractual delivery schedule. In July 2016, a Navy team of engineers and health physicists visited manufacturing sites to ascertain if the production and quality assurance processes could be improved

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| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                       | <b>Date: February 2018</b>               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC | <b>Aggregated Items Title:</b><br>RADIAC |
| <p>sufficiently enough to meet technical specifications and the delivery schedule. Based on the team's observations, a contract modification with a revised delivery schedule and considerations was granted, but the delay prevented award of the delivery order and obligation of FY15 and FY16 funding as had been scheduled. Subsequent Navy acceptance testing and exposure testing at White Sands Missile Range of low rate initial production units delivered from September 2016 through November 2016 identified non-compliance with several technical specifications. After extensive consultations between the manufacturer and the Navy team, Navy findings were incorporated into the design. Deliveries received thereafter through March 2017 have demonstrated the dosimeter now meets all specifications and the manufacturer will be able to ramp up production and meet the delivery schedule for the procurement objective. A follow-on sole source contract is scheduled for award in September 2017. On 5 July 2017 updated pricing for the new award was provided by the manufacturer and has been applied in the P40A effective with FY15 through FY17 available funding. On 29 September 2017 the final delivery order on the initial contract was executed, using budgeted funds from FY15, FY16 and FY17.</p> <p><sup>(2)</sup> M2200, Battlefield Dosimeter Cases. The unit price of the cases will vary with their size. Since all three configurations are consolidated into one Cost Element and will be purchased in varying quantities in each year, the Total Cost year-to-year will not necessarily conform to inflation indices.</p> <p><sup>(3)</sup> M2200, Electronic Personal Dosimeter (EPD): The vendor of the Navy's current EPD has extended its production from the previously announced FY17 to FY22. The manufacturer will set aside 5,000 units for the Navy to procure if they are required, which at the present time is not deemed necessary. But due to the high failure rate of fielded units it may become necessary to procure some of these additional units in future years in order to sustain an inventory that meets operational requirements. In FY23 a new EPD will begin to be procured (in open competition; not necessarily from the same vendor) and an initial 100 units will be procured to provide enough instruments to validate software and logistical requirements. There are currently approximately 30,000 EPDs in the Navy inventory, so procurement of the new model will continue as the older model becomes unsupportable and is gradually phased out. The unit pricing in FY23 uses the pricing of the current model in FY17 as the baseline.</p> <p><sup>(4)</sup> M2400 NWCF Contract Service Fee: In years when serial numbered equipment is purchased through Naval Supply Systems Command, there is no associated contract service fee.</p> <p><sup>(5)</sup> M2500, Air Particle Detector, Ship, Frames: No GFM will be prepared in FY 2017 because no production units were ordered in 2016. However, there was an emergent requirement in FY17 to fund changes to GFM already refurbished. The new design to accommodate COLOMBIA class requirements dictated the need to remove and replace several parts in the already completed GFM. The FY17 refurbishment gap will keep the existing supply of Ready for Issue IM-239/WDQ at levels sufficient to meet demand (IM-239/WDQ supply the cabinets and components that become the GFM). When work resumes in FY 2018 the cost will increase by \$250 per unit above inflation because of the units the contractor has already received, they have reported a failure rate of one internal component of 40%. This is significant enough to warrant its replacement in every piece of GFM they have received or will receive in the future. Also in FY18, 90 of the frames that were previously converted need to have additional work done to remove some components. These 90 units were refurbished prior to completion of the final design of the IM-272/WDQ and some components are no longer required. The unit cost for the refurbishment of the 50 scheduled units does not change; the FY18 unit cost now reflects the additional \$230K needed for the work on the previously refurbished 90 units.</p> <p><sup>(6)</sup> M2500, Air Particle Detector, Ship: The final delivery order on the current contract was placed in June 2017 with increased, updated pricing. The price was increased due to the acoustic modifications ordered by Naval Reactors for the COLUMBIA class submarines. The modifications driving the unit cost increase included making the pressure vessel out of a different material, installing acoustic tiles in the upper pressure vessel, installing a new muffler, and providing factory testing of the units to meet the new acoustic standard. A new contract for the remaining units will be competed on a build to print basis and is scheduled for award in late FY18. Pricing for FY18 units and beyond is notional and based on the pricing of the June 2017 delivery order. On 11 July 2017 in a meeting with Naval Reactors, they disclosed that the original plan to not place the IM-272/WDQ on any of the NIMITZ class carriers has to be modified and the three oldest CVNs will now require these units. This is due to the legal proscription from performing ship alterations on ships within a specified period from their decommissioning. This has increased the procurement objective from 310 units to 338 (30 of the units procured in FY14 have been diverted from U.S. use to a Foreign Military Sales case for the United Kingdom).</p> <p><sup>(7)</sup> M2500, Air Particle Detector, Ship Data: In FY18 due to the new contract for the modified version of the unit with the acoustic upgrade, there will be a one-time extra cost for new Technical Manuals.</p> <p><sup>(8)</sup> Initial unit cost in FY17 included testing of First Articles. The unit cost in FY19 for procuring the same number of units (50) does not include a testing requirement. Unit cost in FY18 is based on step ladder pricing for buying 100 units instead of 50.</p> <p><sup>(9)</sup> With the transfer of services contract management from NAVSEA headquarters to the Warfare Centers effective in FY17, the Service Cost Center (SCC) fee is now being assessed by the Warfare Center in a lump sum, payable in OMN, as opposed to the previous practice of paying per the value of each contract modification in the same appropriation as the funding being added to the contract. Therefore the costs previously associated with OPN funding modifications for the SCC fee have been zeroed out in the FYDP.</p> |                                                       |                                          |

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| <b>Exhibit P-5a, Procurement History and Planning: PB 2019 Navy</b>              |             |      |                                                    |                                                       |                 |               |                              |               | <b>Date:</b> February 2018         |                        |                               |                   |
|----------------------------------------------------------------------------------|-------------|------|----------------------------------------------------|-------------------------------------------------------|-----------------|---------------|------------------------------|---------------|------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |             |      |                                                    | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC |                 |               |                              |               | <b>Aggregated Items:</b><br>RADIAC |                        |                               |                   |
| Item Number / Title [DODIC]                                                      | O<br>C<br>O | FY   | Contractor and Location                            | Method/Type<br>or<br>Funding Vehicle                  | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                  | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>2) M2200 - Dosimetry</b>                                                      |             |      |                                                    |                                                       |                 |               |                              |               |                                    |                        |                               |                   |
| 2.1) DT-702 Card                                                                 |             | 2016 | Thermo Fisher Scientific / Franklin, MA            | SS / IDIQ                                             | NSWC Carderock  | Mar 2016      | Jun 2016                     | 30,000        | 46.71                              | Y                      |                               | May 2014          |
| 2.2) DT-702 Card Holder                                                          |             | 2018 | Thermo Fisher Scientific / Oakwood Village, OH     | SS / IDIQ                                             | NSWC Carderock  | Mar 2018      | Jun 2018                     | 25,000        | 20.00                              | Y                      |                               | Feb 2018          |
| 2.3) Extremity Dosimeter                                                         |             | 2017 | Thermo Fisher Scientific / Oakwood Village, OH     | SS / IDDQ                                             | NSWC Carderock  | Mar 2017      | Jun 2017                     | 9,000         | 13.66                              | Y                      |                               | Feb 2017          |
| 2.4) Battlefield Dosimeter <sup>(1)</sup>                                        |             | 2014 | Radiation Safety & Control Services / Stratham, NH | C / IDDQ                                              | NSWC Carderock  | Sep 2015      | Jun 2016                     | 20,000        | 149.00                             | Y                      |                               | Dec 2012          |
| 2.4) Battlefield Dosimeter <sup>(1)</sup>                                        |             | 2015 | Radiation Safety & Control Services / Stratham, NH | C / IDDQ                                              | NSWC Carderock  | Sep 2017      | Mar 2018                     | 4,044         | 227.00                             | Y                      |                               | Oct 2016          |
| 2.4) Battlefield Dosimeter <sup>(1)</sup>                                        |             | 2016 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Sep 2017      | Mar 2018                     | 5,390         | 227.00                             | Y                      |                               | Jun 2017          |
| 2.4) Battlefield Dosimeter <sup>(1)</sup>                                        |             | 2017 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Sep 2017      | Mar 2018                     | 2,266         | 227.00                             | Y                      |                               | Jun 2017          |
| 2.4) Battlefield Dosimeter <sup>(1)</sup>                                        |             | 2018 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Sep 2018      | Mar 2019                     | 10,275        | 232.00                             | Y                      |                               | Jun 2017          |
| 2.4) Battlefield Dosimeter <sup>(1)</sup>                                        |             | 2019 | Radiation Safety & Control Services / Stratham, NH | C / TBD                                               | NSWC Carderock  | Mar 2019      | Sep 2019                     | 9,175         | 236.00                             | Y                      |                               | Jun 2017          |
| 2.5) Battlefield Dosimeter Cases <sup>(2)</sup>                                  |             | 2015 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Sep 2017      | Mar 2018                     | 200           | 417.00                             | Y                      |                               | Oct 2016          |
| 2.5) Battlefield Dosimeter Cases <sup>(2)</sup>                                  |             | 2017 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Sep 2017      | Mar 2018                     | 118           | 405.17                             | Y                      |                               | Jun 2017          |
| 2.5) Battlefield Dosimeter Cases <sup>(2)</sup>                                  |             | 2018 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Sep 2018      | Mar 2019                     | 165           | 413.00                             | Y                      |                               | Jun 2017          |
| 2.5) Battlefield Dosimeter Cases <sup>(2)</sup>                                  |             | 2019 | Radiation Safety & Control Services / Stratham, NH | SS / FFP                                              | NSWC Carderock  | Mar 2019      | Sep 2019                     | 150           | 421.00                             | Y                      |                               | Jun 2017          |
| 2.7) Electronic Personal Dosimeter <sup>(3)</sup>                                |             | 2016 | Thermo Fisher Scientific / Franklin, MA            | SS / IDDQ                                             | NSWC Carderock  | Jun 2016      | Sep 2016                     | 150           | 441.00                             | Y                      |                               | Jul 2013          |
| 2.7) Electronic Personal Dosimeter <sup>(3)</sup>                                |             | 2017 | Thermo Fisher Scientific / Franklin, MA            | SS / IDIQ                                             | NSWC Carderock  | Mar 2017      | Jun 2017                     | 2,000         | 463.00                             | Y                      |                               | Jul 2013          |
| <b>4) M2500 - Air Sampling Systems</b>                                           |             |      |                                                    |                                                       |                 |               |                              |               |                                    |                        |                               |                   |
| 4.1) Air Particle Detector (APD) Ship Frames <sup>(5)</sup>                      |             | 2013 | Puget Sound NSY / Bremerton, WA                    | WR                                                    | ** NO PCO **    | Nov 2012      | Feb 2013                     | 50            | 5,580.00                           | Y                      |                               |                   |
| 4.1) Air Particle Detector (APD) Ship Frames <sup>(5)</sup>                      |             | 2014 | Puget Sound NSY / Bremerton, WA                    | WR                                                    | ** NO PCO **    | Nov 2013      | Feb 2014                     | 50            | 6,280.00                           | Y                      |                               |                   |
| 4.1) Air Particle Detector (APD) Ship Frames <sup>(5)</sup>                      |             | 2015 | Puget Sound NSY / Bremerton, WA                    | WR                                                    | ** NO PCO **    | Oct 2014      | Jan 2015                     | 50            | 6,580.00                           | Y                      |                               |                   |

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| <b>Exhibit P-5a, Procurement History and Planning: PB 2019 Navy</b>              |                      |           |                                                       |                                               |                        |                       |                                       |                       | <b>Date:</b> February 2018         |                                 |                                        |                           |
|----------------------------------------------------------------------------------|----------------------|-----------|-------------------------------------------------------|-----------------------------------------------|------------------------|-----------------------|---------------------------------------|-----------------------|------------------------------------|---------------------------------|----------------------------------------|---------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                      |           | <b>P-1 Line Item Number / Title:</b><br>2920 / RADIAC |                                               |                        |                       |                                       |                       | <b>Aggregated Items:</b><br>RADIAC |                                 |                                        |                           |
| <b>Item Number / Title [DODIC]</b>                                               | <b>O<br/>C<br/>O</b> | <b>FY</b> | <b>Contractor and Location</b>                        | <b>Method/Type<br/>or<br/>Funding Vehicle</b> | <b>Location of PCO</b> | <b>Award<br/>Date</b> | <b>Date<br/>of First<br/>Delivery</b> | <b>Qty<br/>(Each)</b> | <b>Unit Cost<br/>(\$)</b>          | <b>Specs<br/>Avail<br/>Now?</b> | <b>Date<br/>Revision<br/>Available</b> | <b>RFP Issue<br/>Date</b> |
| 4.1) Air Particle Detector (APD)<br>Ship Frames <sup>(5)</sup>                   |                      | 2016      | Puget Sound NSY / Bremerton, WA                       | WR                                            | ** NO PCO **           | Oct 2015              | Jan 2016                              | 50                    | 6,700.00                           | Y                               |                                        |                           |
| 4.1) Air Particle Detector (APD)<br>Ship Frames <sup>(5)</sup>                   |                      | 2018      | Puget Sound NSY / Bremerton, WA                       | WR                                            | ** NO PCO **           | Oct 2017              | Jan 2018                              | 50                    | 11,840.00                          | Y                               |                                        |                           |
| 4.1) Air Particle Detector (APD)<br>Ship Frames <sup>(5)</sup>                   |                      | 2019      | Puget Sound NSY / Bremerton, WA                       | WR                                            | ** NO PCO **           | Oct 2018              | Jan 2019                              | 60                    | 7,362.00                           | Y                               |                                        |                           |
| 4.2) APD Ship <sup>(6)</sup>                                                     |                      | 2014      | Leidos / San Diego, CA                                | C / FFP                                       | NSWC Carderock         | Sep 2014              | Jul 2015                              | 40                    | 42,975.00                          | Y                               |                                        | Feb 2011                  |
| 4.2) APD Ship <sup>(6)</sup>                                                     |                      | 2017      | Leidos / San Diego, CA                                | C / FFP                                       | NSWC Carderock         | Jun 2017              | Apr 2018                              | 30                    | 58,499.00                          | Y                               |                                        | Feb 2011                  |
| 4.2) APD Ship <sup>(6)</sup>                                                     |                      | 2018      | TBD / UNKNOWN                                         | C / FFP                                       | NSWC Carderock         | Sep 2018              | Jul 2019                              | 40                    | 59,669.00                          | Y                               |                                        | Nov 2017                  |
| 4.2) APD Ship <sup>(6)</sup>                                                     |                      | 2019      | TBD / UNKNOWN                                         | C / FFP                                       | NSWC Carderock         | Apr 2019              | Apr 2019                              | 35                    | 60,862.00                          | Y                               |                                        | Nov 2017                  |
| 4.6) APD Ship Initial Spare Parts                                                |                      | 2019      | TBD / New MFG - Loc                                   | C / TBD                                       | NSWC Carderock         | Mar 2019              | Sep 2019                              | 2                     | 125,000.00                         | Y                               |                                        | Sep 2018                  |
| 4.7) APD Ship Upgrade Kit                                                        |                      | 2018      | TBD / UNKNOWN                                         | C / CPFF                                      | NSWC Carderock         | Sep 2018              | Apr 2019                              | 10                    | 20,000.00                          | Y                               |                                        | Nov 2017                  |
| 4.9) APD Shore                                                                   |                      | 2014      | Canberra Industries / Meriden, CT                     | C / FFP                                       | NSWC Carderock         | Mar 2015              | Sep 2015                              | 60                    | 17,400.00                          | Y                               |                                        | Oct 2012                  |
| 4.9) APD Shore                                                                   |                      | 2017      | Canberra Industries / Meriden, CT                     | C / FFP                                       | NSWC Carderock         | May 2017              | Nov 2017                              | 20                    | 17,610.00                          | Y                               |                                        | Oct 2012                  |
| 4.10) Air Particle Sampler                                                       |                      | 2015      | Spectral Labs, Inc. / San Diego, CA                   | C / FFP                                       | NSWC Carderock         | Jul 2015              | Jun 2016                              | 200                   | 1,227.43                           | Y                               |                                        | Jun 2014                  |
| 4.10) Air Particle Sampler                                                       |                      | 2016      | Spectral Labs, Inc. / San Diego, CA                   | C / FFP                                       | NSWC Carderock         | Jul 2016              | Jun 2017                              | 80                    | 1,248.34                           | Y                               |                                        | Jun 2014                  |
| 4.10) Air Particle Sampler                                                       |                      | 2017      | Spectral Labs, Inc. / San Diego, CA                   | C / FFP                                       | NSWC Carderock         | Jul 2017              | Jun 2018                              | 200                   | 1,307.00                           | Y                               |                                        | Jun 2014                  |
| 4.10) Air Particle Sampler                                                       |                      | 2018      | Spectral Labs, Inc. / San Diego, CA                   | C / FFP                                       | NSWC Carderock         | Jul 2018              | Jun 2019                              | 367                   | 1,320.48                           | Y                               |                                        | Jun 2014                  |
| 4.10) Air Particle Sampler                                                       |                      | 2019      | Spectral Labs, Inc. / San Diego, CA                   | C / FFP                                       | NSWC Carderock         | Jul 2019              | Jun 2020                              | 367                   | 1,319.59                           | Y                               |                                        | Jun 2014                  |
| 4.11) Tritium Monitor <sup>(8)</sup>                                             |                      | 2017      | TBD / TBD                                             | C / FFP                                       | NSWC Carderock         | Sep 2017              | Mar 2018                              | 50                    | 19,500.00                          | Y                               |                                        | Aug 2016                  |
| 4.11) Tritium Monitor <sup>(8)</sup>                                             |                      | 2018      | TBD / TBD                                             | C / FFP                                       | NSWC Carderock         | Mar 2018              | Sep 2018                              | 100                   | 13,447.00                          | Y                               |                                        | Aug 2016                  |
| 4.11) Tritium Monitor <sup>(8)</sup>                                             |                      | 2019      | TBD / TBD                                             | C / TBD                                       | NSWC Carderock         | Mar 2019              | Sep 2019                              | 50                    | 17,894.00                          | Y                               |                                        | Aug 2016                  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------|--------------------|----------------------|-------------------------------------------------------------|-------------------------------------------------|----------------|----------------------------|--------------------|------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                                               |                    |                      |                                                             |                                                 |                | <b>Date:</b> February 2018 |                    |                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |                                                 |                |                            |                    |                  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                             | <b>Other Related Program Elements:</b> 0303138N |                |                            |                    |                  |
| <b>Line Item MDAP/MAIS Code:</b> M417                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                                               |                    |                      |                                                             |                                                 |                |                            |                    |                  |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                              | <b>FY 2021</b>                                  | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>     |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                             | -                  | -                    | -                                                           | -                                               | -              | -                          | -                  | -                |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 283.715            | 35.313         | 48.028         | 54.465                                        | 0.000              | 54.465               | 54.528                                                      | 47.749                                          | 52.764         | 50.129                     | 528.165            | 1,154.856        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                           | -                                               | -              | -                          | -                  | -                |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 283.715            | 35.313         | 48.028         | 54.465                                        | 0.000              | 54.465               | 54.528                                                      | 47.749                                          | 52.764         | 50.129                     | 528.165            | 1,154.856        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                           | -                                               | -              | -                          | -                  | -                |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>283.715</b>     | <b>35.313</b>  | <b>48.028</b>  | <b>54.465</b>                                 | <b>0.000</b>       | <b>54.465</b>        | <b>54.528</b>                                               | <b>47.749</b>                                   | <b>52.764</b>  | <b>50.129</b>              | <b>528.165</b>     | <b>1,154.856</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                |                                               |                    |                      |                                                             |                                                 |                |                            |                    |                  |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | 0.896          | 0.896                                         | -                  | 0.896                | 0.917                                                       | 0.843                                           | 0.711          | 0.616                      | Continuing         | Continuing       |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                                             | -                  | -                    | -                                                           | -                                               | -              | -                          | -                  | -                |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                                             | -                  | -                    | -                                                           | -                                               | -              | -                          | -                  | -                |
| <p><b>Description:</b></p> <p>Consolidated Afloat Networks and Enterprise Services (CANES) is the Navy's Program of Record (POR) to replace and modernize existing afloat networks with the necessary hardware, software and enterprise services infrastructure to enable information warfare from and within the tactical domain. CANES provides complete infrastructure inclusive of hardware, software, processing, storage and end user devices for the Unclassified, Coalition, Secret and Sensitive Compartmented Information (SCI) enclaves to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers, and Aegis Ashore sites. CANES services include application hosting, data transport and storage, system management, cyber security, email, web, chat, collaboration, and voice and video services. CANES is based on the overarching concept of reducing the number of afloat networks and providing enhanced efficiency through a single engineering focus on integrated technical solutions. It allows for streamlined acquisition, contracting, test events, sustainment, and significant lifecycle efficiencies through consolidation of multiple configuration management baselines, logistics, and training efforts into a single unified support structure.</p> <p>More than eighty (80) hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Specific programs, such as Distributed Common Ground System - Navy (DCGS-N), Global Command and Control System - Maritime (GCCS-M), Naval Tactical Command Support System (NTCSS), and Undersea Warfare Decision Support System (USW-DSS), no longer provide their own independent network hardware and now depend on CANES to field, host, and sustain their capabilities. The CANES Application Integration program provides common software governance, testing, processes, and tools to application developers, and evaluates and confirms compatibility between CANES and the hosted applications prior to fielding. CANES also provides a set of capabilities called Agile Core Services (ACS) which brings common network services to allow hosted application developers to focus on the unique capabilities they provide.</p> <p>CANES is funded and programmed to develop regular technical updates with an agile and robust hardware and software baseline development cycle necessary to pace rapidly evolving cyber security threats and meet emerging operational demands within the tactical domain. In order to deliver a mission effective, secure and affordable afloat network, CANES implements a Development Operations (DevOps) framework to improve its engineering processes and speed the deployment of new cyber security, application hosting and baseline updates. CANES requires that Automated Digital Network System (ADNS) field prior to or concurrently with CANES due to the architectural reliance between the two programs.</p> |                    |                |                |                                               |                    |                      |                                                             |                                                 |                |                            |                    |                  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|-------|----------------------------------------|------------------------------------------------------|---------------------------------------|---------------------------------------|------------------------------------------|---------------------------------------|---------------------------------------|--|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                         |                                          |             |       |                                        |                                                      |                                       | Date: February 2018                   |                                          |                                       |                                       |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment |                                          |             |       |                                        | P-1 Line Item Number / Title:<br>2925 / CANES Intell |                                       |                                       |                                          |                                       |                                       |  |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                  |                                          |             |       | Program Elements for Code B Items: N/A |                                                      |                                       |                                       | Other Related Program Elements: 0303138N |                                       |                                       |  |
| Line Item MDAP/MAIS Code: M417                                                                                                                                                     |                                          |             |       |                                        |                                                      |                                       |                                       |                                          |                                       |                                       |  |
| Exhibits Schedule                                                                                                                                                                  |                                          |             |       |                                        | Prior Years                                          | FY 2017                               | FY 2018                               | FY 2019 Base                             | FY 2019 OCO                           | FY 2019 Total                         |  |
| Exhibit Type                                                                                                                                                                       | Title*                                   | Subexhibits | ID CD | MDAP/MAIS Code                         | Quantity / Total Cost (Each) / (\$ M)                | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M)    | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |  |
| P-5                                                                                                                                                                                | 1 / CANES Intell                         |             |       |                                        | - / 1.050                                            | - / 0.000                             | - / 0.000                             | - / 0.000                                | - / 0.000                             | - / 0.000                             |  |
| P-3a                                                                                                                                                                               | 1 / CANES-Afloat 5G010/5G777 MIP (TBD)   |             |       |                                        | - / 278.451                                          | - / 35.313                            | - / 47.579                            | - / 51.509                               | - / 0.000                             | - / 51.509                            |  |
| P-3a                                                                                                                                                                               | 2 / CANES - Ashore 5G010/5G776 MIP (TBD) |             |       |                                        | - / 4.214                                            | - / 0.000                             | - / 0.449                             | - / 2.956                                | - / 0.000                             | - / 2.956                             |  |
| P-40                                                                                                                                                                               | Total Gross/Weapon System Cost           |             |       |                                        | - / 283.715                                          | - / 35.313                            | - / 48.028                            | - / 54.465                               | - / 0.000                             | - / 54.465                            |  |
| Exhibits Schedule                                                                                                                                                                  |                                          |             |       |                                        | FY 2020                                              | FY 2021                               | FY 2022                               | FY 2023                                  | To Complete                           | Total                                 |  |
| Exhibit Type                                                                                                                                                                       | Title*                                   | Subexhibits | ID CD | MDAP/MAIS Code                         | Quantity / Total Cost (Each) / (\$ M)                | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M)    | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |  |
| P-5                                                                                                                                                                                | 1 / CANES Intell                         |             |       |                                        | - / -                                                | - / -                                 | - / -                                 | - / -                                    | - / -                                 | - / -                                 |  |
| P-3a                                                                                                                                                                               | 1 / CANES-Afloat 5G010/5G777 MIP (TBD)   |             |       |                                        | - / 51.018                                           | - / 45.908                            | - / 52.404                            | - / 48.853                               | - / 453.084                           | - / 1,064.119                         |  |
| P-3a                                                                                                                                                                               | 2 / CANES - Ashore 5G010/5G776 MIP (TBD) |             |       |                                        | - / 3.510                                            | - / 1.841                             | - / 0.360                             | - / 1.276                                | - / 15.980                            | - / 30.586                            |  |
| P-40                                                                                                                                                                               | Total Gross/Weapon System Cost           |             |       |                                        | - / 54.528                                           | - / 47.749                            | - / 52.764                            | - / 50.129                               | - / 528.165                           | - / 1,154.856                         |  |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.               |                                          |             |       |                                        |                                                      |                                       |                                       |                                          |                                       |                                       |  |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                             |                                          |             |       |                                        |                                                      |                                       |                                       |                                          |                                       |                                       |  |

**Justification:**

The FY19 increase in the CANES funding profile optimizes the Chief of Naval Operations (CNO) ship availabilities with the CANES program's capacity and capability to procure and install the product. This ensures CANES is deployed to the Fleet as quickly and effectively as possible to mitigate heightened cyber security threats across Navy tactical networks and supports the DoD direction to remove End of Life (EOL) Windows Operating Systems software from the Fleet as quickly as feasible. Microsoft's end of cyber security support for legacy versions of Windows, as well as networks that rely on obsolete hardware and software, are driving increased sustainment costs, reducing operational availability and creating critical cyber security vulnerability in Navy Tactical Networks. Replacing these legacy networks and modernizing the tactical environment with CANES is the cornerstone for all C4ISR investments. CANES is a mature program with an innovative Multi Award Contract (MAC) in place that has consistently proven capable of delivering on or ahead of schedule. Additionally, it has decreased its installation time and continues to work towards decreasing ship touch time during installations. The MAC ensures capacity for production and installation growth.

FY 2019 - CANES funds are for the procurement of (20) Afloat production units (2 Force Level, 9 Unit Level, 9 Subs), (25) Technical Insertion units (7 Force Level, 13 Unit Level, 5 Subs), and (1) Afloat First Article, with integration and associated costs for pre-installation design and the installation of (22) Afloat production units and (9) Technical Insertion units. CANES funds will also be used for the procurement (3) Ashore units and (2) Ashore Technical Insertion units and the installation of (1) Ashore unit and (2) Ashore Technical Insertion units.

It is important to note that procurement quantities across the FYDP are the same CANES end item products referenced in CANES LI 2915. Installation quantities represent sites receiving CANES as also referenced in LI 2915. The associated dollars in this exhibit represent the Intell portions of the CANES enclave.



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|----------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|-------------------|------------------|------------|------------------------------------------------------|------------------|------------|-------------------|------------------|------------|--------------------------------------------------|------------------|---------------|-------------------|------------------|------------|-------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            | Date: February 2018                              |                  |               |                   |                  |            |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                                                              |                  |            |                   |                  |            | P-1 Line Item Number / Title:<br>2925 / CANES Intell |                  |            |                   |                  |            | Item Number / Title [DODIC]:<br>1 / CANES Intell |                  |               |                   |                  |            |                   |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                  |            |                   |                  |            |                                                      |                  |            |                   | MDAP/MAIS Code:  |            |                                                  |                  |               |                   |                  |            |                   |
| Resource Summary                                                                                                                       |                  |            |                   | Prior Years      |            | FY 2017                                              |                  | FY 2018    |                   | FY 2019 Base     |            | FY 2019 OCO                                      |                  | FY 2019 Total |                   |                  |            |                   |
| Procurement Quantity (Units in Each)                                                                                                   |                  |            |                   | -                |            | -                                                    |                  | -          |                   | -                |            | -                                                |                  | -             |                   |                  |            |                   |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              |                  |            |                   | 1.050            |            | 0.000                                                |                  | 0.000      |                   | 0.000            |            | 0.000                                            |                  | 0.000         |                   |                  |            |                   |
| Less PY Advance Procurement (\$ in Millions)                                                                                           |                  |            |                   | -                |            | -                                                    |                  | -          |                   | -                |            | -                                                |                  | -             |                   |                  |            |                   |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 |                  |            |                   | 1.050            |            | 0.000                                                |                  | 0.000      |                   | 0.000            |            | 0.000                                            |                  | 0.000         |                   |                  |            |                   |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           |                  |            |                   | -                |            | -                                                    |                  | -          |                   | -                |            | -                                                |                  | -             |                   |                  |            |                   |
| Total Obligation Authority (\$ in Millions)                                                                                            |                  |            |                   | 1.050            |            | 0.000                                                |                  | 0.000      |                   | 0.000            |            | 0.000                                            |                  | 0.000         |                   |                  |            |                   |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            |                                                  |                  |               |                   |                  |            |                   |
| Initial Spares (\$ in Millions)                                                                                                        |                  |            |                   | -                |            | -                                                    |                  | -          |                   | -                |            | -                                                |                  | -             |                   |                  |            |                   |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        |                  |            |                   | -                |            | -                                                    |                  | -          |                   | -                |            | -                                                |                  | -             |                   |                  |            |                   |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            |                                                  |                  |               |                   |                  |            |                   |
| Cost Elements                                                                                                                          | Prior Years      |            |                   | FY 2017          |            |                                                      | FY 2018          |            |                   | FY 2019 Base     |            |                                                  | FY 2019 OCO      |               |                   | FY 2019 Total    |            |                   |
|                                                                                                                                        | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                    | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                | Unit Cost (\$ K) | Qty (Each)    | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| Hardware Cost                                                                                                                          |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            |                                                  |                  |               |                   |                  |            |                   |
| Non Recurring Cost                                                                                                                     |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            |                                                  |                  |               |                   |                  |            |                   |
| 1.1.1) Consolidated Prior Year Requirements <sup>(1)</sup>                                                                             | -                | -          | 1.050             | -                | -          | 0.000                                                | -                | -          | 0.000             | -                | -          | 0.000                                            | -                | -             | 0.000             | -                | -          | 0.000             |
| Subtotal: Non Recurring Cost                                                                                                           | -                | -          | 1.050             | -                | -          | 0.000                                                | -                | -          | 0.000             | -                | -          | 0.000                                            | -                | -             | 0.000             | -                | -          | 0.000             |
| Subtotal: Hardware Cost                                                                                                                | -                | -          | 1.050             | -                | -          | 0.000                                                | -                | -          | 0.000             | -                | -          | 0.000                                            | -                | -             | 0.000             | -                | -          | 0.000             |
| Gross/Weapon System Cost                                                                                                               | -                | -          | 1.050             | -                | -          | 0.000                                                | -                | -          | 0.000             | -                | -          | 0.000                                            | -                | -             | 0.000             | -                | -          | 0.000             |
| Footnotes:                                                                                                                             |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            |                                                  |                  |               |                   |                  |            |                   |
| <sup>(1)</sup> Consolidated Prior Year requirements consists of Cooperative Maritime Forces Pacific (CMFP).                            |                  |            |                   |                  |            |                                                      |                  |            |                   |                  |            |                                                  |                  |               |                   |                  |            |                   |

**Footnotes:**

<sup>(1)</sup> Consolidated Prior Year requirements consists of Cooperative Maritime Forces Pacific (CMFP).

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|----------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------|--|----------------------------|--|-------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                             |  | <b>Date:</b> February 2018 |  |                                                                         |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |  |                            |  | <b>Modification Number / Title:</b><br>1 / CANES-Afloat 5G010/5G777 MIP |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |           |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|-----------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total     |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 278.451     | 35.313  | 47.579  | 51.509       | 0.000       | 51.509          | 51.018  | 45.908  | 52.404  | 48.853  | 453.084     | 1,064.119 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 278.451     | 35.313  | 47.579  | 51.509       | 0.000       | 51.509          | 51.018  | 45.908  | 52.404  | 48.853  | 453.084     | 1,064.119 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 278.451     | 35.313  | 47.579  | 51.509       | 0.000       | 51.509          | 51.018  | 45.908  | 52.404  | 48.853  | 453.084     | 1,064.119 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |           |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -         |

**Description:**

The consolidation of existing Afloat Network programs of record designed to provide an agile, responsive Common Computing Environment (CCE) and Afloat Core Services (ACS) within and upon which application developers will host Command and Control, Warfare, Intelligence, Logistics, and business and education applications and services. Migration of Non-Classified Enclave (NCE) capabilities into the CANES baseline.

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|--------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                        |                                |                                |                                |                                                      |                                |                                |                                | Date: February 2018                                              |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                  |                                |                                |                                | P-1 Line Item Number / Title:<br>2925 / CANES Intell |                                |                                |                                | Modification Number / Title:<br>1 / CANES-Afloat 5G010/5G777 MIP |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                                           |                                |                                |                                |                                                      |                                |                                | MDAP/MAIS Code:                |                                                                  |                                |                                |                                |                                |
| Models of Systems Affected: Consolidated Afloat Networks & Enterprise Services (CANES) MIP |                                |                                |                                | Modification Type: TBD                               |                                |                                |                                | Related RDT&E PEs: 0303238N                                      |                                |                                |                                |                                |
| Financial Plan                                                                             | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                         | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                          | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                                |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Modification Item 1 of 1: CANES-Afloat 5G010/5G777 MIP                                     |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| B Kits                                                                                     |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Recurring                                                                                  |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| 1.1.1) CANES - Afloat Production Units - MIP - NonOrganic <sup>(2)</sup>                   | 73 / 138.206                   | 13 / 13.102                    | 22 / 22.191                    | 20 / 14.144                                          | - / -                          | 20 / 14.144                    | 17 / 10.019                    | 20 / 10.317                                                      | 11 / 6.256                     | 9 / 6.487                      | - / -                          | 185 / 220.722                  |
| 1.1.2) CANES Afloat Technical Insertion - MIP - NonOrganic <sup>(3)</sup>                  | 3 / 1.000                      | 11 / 7.197                     | 8 / 5.602                      | 25 / 11.885                                          | - / -                          | 25 / 11.885                    | 13 / 8.074                     | 27 / 14.257                                                      | 36 / 20.826                    | 35 / 19.522                    | 403 / 226.667                  | 561 / 315.030                  |
| Subtotal: Recurring                                                                        | - / 139.206                    | - / 20.299                     | - / 27.793                     | - / 26.029                                           | - / -                          | - / 26.029                     | - / 18.093                     | - / 24.574                                                       | - / 27.082                     | - / 26.009                     | - / 226.667                    | - / 535.752                    |
| Non-Recurring                                                                              |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| 1.2.1) CANES - Afloat First Articles - MIP - Organic <sup>(4)</sup>                        | 10 / 34.509                    | 1 / 1.118                      | 1 / 0.618                      | 1 / 0.625                                            | - / -                          | 1 / 0.625                      | - / -                          | - / -                                                            | - / -                          | - / -                          | - / -                          | 13 / 36.870                    |
| 1.2.2) CANES-Non-Recurring Engineering (MIP) - Organic                                     | - / 4.732                      | - / -                          | - / -                          | - / -                                                | - / -                          | - / -                          | - / -                          | - / -                                                            | - / -                          | - / -                          | - / -                          | - / 4.732                      |
| Subtotal: Non-Recurring                                                                    | - / 39.241                     | - / 1.118                      | - / 0.618                      | - / 0.625                                            | - / -                          | - / 0.625                      | - / -                          | - / -                                                            | - / -                          | - / -                          | - / 0.000                      | - / 41.602                     |
| Subtotal: CANES-Afloat 5G010/5G777 MIP                                                     | 86 / 178.447                   | 25 / 21.417                    | 31 / 28.411                    | 46 / 26.654                                          | - / -                          | 46 / 26.654                    | 30 / 18.093                    | 47 / 24.574                                                      | 47 / 27.082                    | 44 / 26.009                    | 403 / 226.667                  | 759 / 577.354                  |
| Subtotal: Procurement, All Modification Items                                              | - / 178.447                    | - / 21.417                     | - / 28.411                     | - / 26.654                                           | - / -                          | - / 26.654                     | - / 18.093                     | - / 24.574                                                       | - / 27.082                     | - / 26.009                     | - / 226.667                    | - / 577.354                    |
| Support (All Modification Items)                                                           |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| 2.1) CANES - Afloat Production Support (MIP)                                               | - / 7.238                      | - / 1.065                      | - / 1.428                      | - / 1.370                                            | - / 0.000                      | - / 1.370                      | - / 0.952                      | - / 1.293                                                        | - / 1.425                      | - / 1.369                      | - / 11.930                     | - / 28.070                     |
| 2.2) CANES - Afloat Design Service Agent (MIP)                                             | - / 11.341                     | - / 1.863                      | - / 1.876                      | - / 1.735                                            | - / 0.000                      | - / 1.735                      | - / 1.812                      | - / 1.107                                                        | - / 1.257                      | - / 1.644                      | - / 2.708                      | - / 25.343                     |
| Subtotal: Support                                                                          | - / 18.579                     | - / 2.928                      | - / 3.304                      | - / 3.105                                            | - / -                          | - / 3.105                      | - / 2.764                      | - / 2.400                                                        | - / 2.682                      | - / 3.013                      | - / 14.638                     | - / 53.413                     |
| Installation                                                                               |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Modification Item 1 of 1: CANES-Afloat 5G010/5G777 MIP                                     | - / 81.425                     | - / 10.968                     | - / 15.864                     | - / 21.750                                           | - / 0.000                      | - / 21.750                     | - / 30.161                     | - / 18.934                                                       | - / 22.640                     | - / 19.831                     | - / 211.779                    | - / 433.352                    |
| Subtotal: Installation                                                                     | - / 81.425                     | - / 10.968                     | - / 15.864                     | - / 21.750                                           | - / -                          | - / 21.750                     | - / 30.161                     | - / 18.934                                                       | - / 22.640                     | - / 19.831                     | - / 211.779                    | - / 433.352                    |
| Total                                                                                      |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                                          | 278.451                        | 35.313                         | 47.579                         | 51.509                                               | 0.000                          | 51.509                         | 51.018                         | 45.908                                                           | 52.404                         | 48.853                         | 453.084                        | 1,064.119                      |
|                                                                                            |                                |                                |                                |                                                      |                                |                                |                                |                                                                  |                                |                                |                                |                                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                   |                                |                                |                                |                                                             |                                |                                | <b>Date:</b> February 2018         |                                                                         |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                             |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |                                |                                |                                    | <b>Modification Number / Title:</b><br>1 / CANES-Afloat 5G010/5G777 MIP |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                      |                                |                                |                                |                                                             |                                |                                | <b>MDAP/MAIS Code:</b>             |                                                                         |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> CANES-Afloat 5G010/5G777 MIP                                                |                                |                                |                                |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                              |                                |                                |                                |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| Manufacturer Name: Multiple Vendors <sup>(5)</sup>                                                           |                                |                                |                                |                                                             |                                |                                | Manufacturer Location: Various     |                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 1                                                                       |                                |                                |                                |                                                             |                                |                                | Production Leadtime (in Months): 6 |                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                              | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                     |                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                                               | Jan 2017                       | Nov 2017                       | Nov 2018                       |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                                               | Jul 2017                       | May 2018                       | May 2019                       |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| Manufacturer Name: Multiple Vendors <sup>(6)</sup>                                                           |                                |                                |                                |                                                             |                                |                                | Manufacturer Location: Various     |                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 1                                                                       |                                |                                |                                |                                                             |                                |                                | Production Leadtime (in Months): 4 |                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                              | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                     |                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                                               | Jan 2017                       | Nov 2017                       | Nov 2018                       |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                                               | May 2017                       | Mar 2018                       | Mar 2019                       |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                              |                                |                                |                                |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Afloat Production Units - MIP |                                |                                |                                |                                                             |                                |                                |                                    |                                                                         |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                         | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                     | <b>FY 2021</b>                                                          | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)     | Qty (Each) / Total Cost (\$ M)                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                  | 68 / 81.425                    | 5 / 5.468                      | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                              | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 73 / 86.893                    |
| FY 2017                                                                                                      | - / -                          | 3 / 2.910                      | 10 / 10.919                    | - / -                                                       | - / -                          | - / -                          | - / -                              | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 13 / 13.829                    |
| FY 2018                                                                                                      | - / -                          | - / -                          | - / -                          | 22 / 18.016                                                 | 0 / 0.000                      | 22 / 18.016                    | - / -                              | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 22 / 18.016                    |
| FY 2019                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | 20 / 16.593                        | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 20 / 16.593                    |
| FY 2020                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                              | 17 / 11.867                                                             | - / -                          | - / -                          | 0 / 0.000                      | 17 / 11.867                    |
| FY 2021                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                              | - / -                                                                   | 20 / 11.259                    | - / -                          | 0 / 0.000                      | 20 / 11.259                    |
| FY 2022                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                              | - / -                                                                   | - / -                          | 11 / 6.394                     | 0 / 0.000                      | 11 / 6.394                     |
| FY 2023                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                              | - / -                                                                   | - / -                          | - / -                          | 9 / 6.149                      | 9 / 6.149                      |
| To Complete                                                                                                  | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                              | - / -                                                                   | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                                        | 68 / 81.425                    | 8 / 8.378                      | 10 / 10.919                    | 22 / 18.016                                                 | 0 / 0.000                      | 22 / 18.016                    | 20 / 16.593                        | 17 / 11.867                                                             | 20 / 11.259                    | 11 / 6.394                     | 9 / 6.149                      | 185 / 171.000                  |

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|---------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------|-----------|-----------|------------------------|-----------|-----------|-----------|-------------------------------------------------------------------------|----------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                    |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         | <b>Date:</b> February 2018       |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                              |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |                                       |                                       |                                       |           |           |           |                        |           |           |           | <b>Modification Number / Title:</b><br>1 / CANES-Afloat 5G010/5G777 MIP |                                  |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           | <b>MDAP/MAIS Code:</b> |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CANES-Afloat 5G010/5G777 MIP                                                 |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Afloat Production Units - MIP  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
|                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                        |                                                             |                                       |                                       | <b>FY 2020</b>                        |           |           |           | <b>FY 2021</b>         |           |           |           | <b>FY 2022</b>                                                          |                                  |           |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                                               |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                                                   | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>              | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                               | <b>Q2</b>                        | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                                            | 62         | 6                                     | 2                                     | 1                                     | 4                                     | 2                                     | 3                                     | 3                                     | 3                                     | 2                                     | 11                                                          | 5                                     | 4                                     | 2                                     | 10        | 2         | 6         | 3                      | 6         | 5         | 3         | 3                                                                       | 9                                | 5         | 3         | 3              | 3         | 3         | 2         | 9         | 185        |
| Out                                                                                                           | 52         | 8                                     | 8                                     | 2                                     | 1                                     | 4                                     | 2                                     | 3                                     | 3                                     | 3                                     | 2                                                           | 11                                    | 5                                     | 4                                     | 2         | 10        | 2         | 6                      | 3         | 6         | 5         | 3                                                                       | 3                                | 9         | 5         | 3              | 3         | 3         | 3         | 11        | 185        |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES Afloat Technical Insertion - MIP |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                      |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                              | <b>To Complete</b>                    | <b>Total</b>                          |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
|                                                                                                               |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                   |            | - / -                                 | 3 / 0.816                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | 0 / 0.000                             | 3 / 0.816                             |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                       |            | - / -                                 | 2 / 1.774                             | 9 / 4.945                             | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | 0 / 0.000                             | 11 / 6.719                            |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | 8 / 2.970                             | 0 / 0.000                             | 8 / 2.970                             | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | 0 / 0.000                             | 8 / 2.970                             |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | 1 / 0.764                             | 0 / 0.000                             | 1 / 0.764                             | 24 / 10.590                           | - / -                                 | - / -                                 | - / -                                                       | 0 / 0.000                             | 25 / 11.354                           |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 6 / 2.978                             | 7 / 1.830                             | - / -                                 | - / -                                                       | 0 / 0.000                             | 13 / 4.808                            |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 10 / 5.237                            | 17 / 6.422                            | - / -                                                       | 0 / 0.000                             | 27 / 11.659                           |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 13 / 4.959                            | 23 / 9.018                                                  | 0 / 0.000                             | 36 / 13.977                           |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                       |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 12 / 4.419                                                  | 23 / 11.102                           | 35 / 15.521                           |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| To Complete                                                                                                   |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | 403 / 194.528                         | 403 / 194.528                         |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| Total                                                                                                         |            | - / -                                 | 5 / 2.590                             | 9 / 4.945                             | 9 / 3.734                             | 0 / 0.000                             | 9 / 3.734                             | 30 / 13.568                           | 17 / 7.067                            | 30 / 11.381                           | 35 / 13.437                                                 | 426 / 205.630                         | 561 / 262.352                         |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
|                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                        |                                                             |                                       |                                       | <b>FY 2020</b>                        |           |           |           | <b>FY 2021</b>         |           |           |           | <b>FY 2022</b>                                                          |                                  |           |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                                               |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                                                   | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>              | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                               | <b>Q2</b>                        | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                                            | -          | -                                     | 2                                     | -                                     | 3                                     | -                                     | 4                                     | 2                                     | 3                                     | 1                                     | 3                                                           | 1                                     | 4                                     | 7                                     | 9         | 8         | 6         | -                      | 4         | 3         | 10        | 2                                                                       | 12                               | 3         | 13        | 2              | 16        | 5         | 12        | 426       | 561        |
| Out                                                                                                           | -          | -                                     | -                                     | 2                                     | -                                     | 3                                     | -                                     | 4                                     | 2                                     | 3                                     | 1                                                           | 3                                     | 1                                     | 4                                     | 7         | 9         | 8         | 6                      | -         | 4         | 3         | 10                                                                      | 2                                | 12        | 3         | 13             | 2         | 16        | 5         | 438       | 561        |
| <b>Method of Implementation (Organic):</b> CANES - Afloat First Articles - MIP - Not Installed                |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |
|                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         | <b>Installation Quantity:</b> 13 |           |           |                |           |           |           |           |            |
| <b>Footnotes:</b>                                                                                             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |           |           |           |                        |           |           |           |                                                                         |                                  |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                             | <b>Date:</b> February 2018                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell | <b>Modification Number / Title:</b><br>1 / CANES-Afloat 5G010/5G777 MIP |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                             | <b>MDAP/MAIS Code:</b>                                                  |
| <p>(2) -CANES installations are conducted across several fleet concentration areas supported by six installation Multiple Award Contract (MAC) holders. The SPAWAR Fleet Readiness Directorate (FRD) Installation Organization (FIO) has ensured sufficient Alteration Installation Teams (AIT) resources are available to meet the FY19 - 23 CANES installation plan. -CANES Afloat production units require an additional 4 months after delivery for integration, assembly and testing prior to installation start. Installations do not begin until 10 months after contract award (6 months production lead time (PLT) + 4 months integration). Total lead time, including admin lead time, is 11 months. -The procurement average unit cost fluctuation is due to variance in system configuration requirements for each CANES platform type. Furthermore, because CANES production units and installations are procured through separate multiple award contracts, there are unit cost fluctuations associated with the contracting process. A CANES unit level platform (DDG/CG/LSD) requires a smaller system, supporting fewer users and applications than force level platforms with a greater number of users and applications. For example, a CANES DDG design consists of 18 equipment racks and ~400 workstations, while a CANES CVN system consists of 48 equipment racks and ~3000 workstations. The average procurement cost (hardware, software, integration, and engineering support) for a unit level ship ranges from \$5.2M to \$7.5M, while the average procurement cost for a force level platform ranges from \$11.8M to \$15.6M, and submarine unit procurement costs range from \$2.7M to \$4.6M. These costs include both the MIP and non-MIP components of the CANES units. -Installation cost fluctuations are attributed to and dependent on ship class, variant of predecessor system the hull currently has installed. As an example of variant differences, if a CVN has an ISNS Delta variant installed, a CANES installation is estimated to be \$18.2M. If that same CVN had a legacy Asynchronous Transfer Mode Local Area Network (ATM LAN) the CANES installation is estimated to be \$22.4M. This cost is driven by a number of issues such as the requirement for new or additional wiring, plugs, configurations changes - The decrease in production unit cost from FY18 to FY19 is due to a dramatically lower percentage of more expensive Force Level units in FY19 compared to FY18.</p> <p>(3) - CANES technical insertion installations are conducted across several fleet concentration areas supported by six installation Multiple Award Contract (MAC) holders. The SPAWAR Fleet Readiness Directorate (FRD) Installation Organization (FIO) has ensured sufficient Alteration Installation Teams (AIT) resources are available to meet the FY19 - 23 CANES installation plan. - CANES Afloat technical insertion units require an additional 3 months after delivery for operational integration, assembly and testing prior to installation start. Installations do not begin until 7 months after contract award (4 months production lead time (PLT) + 3 months integration). Total lead time, including admin lead time, is 8 months. The decrease in production unit cost from FY18 to FY19 is due to a dramatically lower percentage of more expensive Force Level units in FY19 compared to FY18.</p> <p>(4) First articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. First articles are separate from production units and must be bought prior to the procurement of the corresponding production units. Procurement Lead Time (PLT) is 8 months for First Articles (DDG, CVN, submarines, etc). All following production articles of the same variant require a PLT of 6 months. CANES First Articles are not installed. Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. A DDG/CG/LSD (unit level platforms) has fewer users and runs fewer applications than a LHD/CVN/LPD (force level platforms). Force level platforms are larger in scale compared to the unit level ships and represent a super set of users, applications and connected systems. The FY15 and FY17 units are Unit Level procurements. The FY16 procurement is a force level system.</p> <p>(5) CANES: Full Production Contract has 7 possible vendors on MAC award: Northrop Grumman Systems Corp, BAE Sytems Technology Solutions &amp; Services, General Dynamics C4 Systems, Global Technical Systems, SERCO, Inc, CGI Federal Inc, DRS Laurel Technologies. This contract will be used for both production and tech refresh units.</p> <p>(6) CANES: Full Production Contract has 7 possible vendors on MAC award: Northrop Grumman Systems Corp, BAE Sytems Technology Solutions &amp; Services, General Dynamics C4 Systems, Global Technical Systems, SERCO, Inc, CGI Federal Inc, DRS Laurel Technologies. This contract will be used for both production and tech refresh units.</p> |                                                             |                                                                         |

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|----------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------|--|----------------------------|--|---------------------------------------------------------------------------|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                             |  | <b>Date:</b> February 2018 |  |                                                                           |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |  |                            |  | <b>Modification Number / Title:</b><br>2 / CANES - Ashore 5G010/5G776 MIP |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 4.214       | 0.000   | 0.449   | 2.956        | 0.000       | 2.956           | 3.510   | 1.841   | 0.360   | 1.276   | 15.980      | 30.586 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 4.214       | 0.000   | 0.449   | 2.956        | 0.000       | 2.956           | 3.510   | 1.841   | 0.360   | 1.276   | 15.980      | 30.586 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 4.214       | 0.000   | 0.449   | 2.956        | 0.000       | 2.956           | 3.510   | 1.841   | 0.360   | 1.276   | 15.980      | 30.586 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The consolidation of existing Ashore Network programs of record designed to provide a single, agile, responsive Common Computing Environment (CCE) hardware and software suite which will host Command and Control, Warfare, Intelligence, Logistics, Business, and Education/Training applications and services for Maritime Operation Centers (MOC), Aegis Ashore (AA), and Technical Training Equipment (TTE) sites. CANES will provide complete Local Area Network (LAN) infrastructure and services inclusive of hardware, software, processing, storage, workstations, and tablets for all basic network services (email, web, chat, collaboration) at these sites.

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|---------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|---------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                        |                                |                                |                                |                                                             |                                |                                |                                |                                        | <b>Date:</b> February 2018                                                |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                  |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>2 / CANES - Ashore 5G010/5G776 MIP |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                           |                                |                                |                                |                                                             |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                           |                                |                                |                                |  |
| <b>Models of Systems Affected:</b> Consolidated Afloat Networks & Enterprise Services (CANES) MIP |                                |                                |                                | <b>Modification Type:</b> TBD                               |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0303238N |                                                                           |                                |                                |                                |  |
| <b>Financial Plan</b>                                                                             | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                         | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                                                            | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| <i>Modification Item 1 of 1:</i> CANES - Ashore 5G010/5G776 MIP                                   |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| B Kits                                                                                            |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| Recurring                                                                                         |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| 1.1.1) CANES-Ashore Production Units MIP - NonOrganic <sup>(7)</sup>                              | 2 / 0.497                      | - / -                          | 1 / 0.332                      | 3 / 1.707                                                   | - / -                          | 3 / 1.707                      | 5 / 2.495                      | - / -                                  | - / -                                                                     | - / -                          | - / -                          | 11 / 5.031                     |  |
| 1.1.2) CANES - Ashore Technical Insertion - MIP - NonOrganic                                      | - / -                          | - / -                          | - / -                          | 2 / 0.542                                                   | - / -                          | 2 / 0.542                      | - / -                          | - / -                                  | 1 / 0.270                                                                 | 3 / 0.933                      | 31 / 11.019                    | 37 / 12.764                    |  |
| <i>Subtotal: Recurring</i>                                                                        | - / 0.497                      | - / -                          | - / 0.332                      | - / 2.249                                                   | - / -                          | - / 2.249                      | - / 2.495                      | - / -                                  | - / 0.270                                                                 | - / 0.933                      | - / 11.019                     | - / 17.795                     |  |
| Non-Recurring                                                                                     |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| 1.2.1) CANES - Ashore First Articles - MIP - Organic <sup>(8)</sup>                               | 1 / 3.264                      | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                     | - / -                          | - / -                          | 1 / 3.264                      |  |
| <i>Subtotal: Non-Recurring</i>                                                                    | - / 3.264                      | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                                                                     | - / -                          | - / 0.000                      | - / 3.264                      |  |
| <i>Subtotal: CANES - Ashore 5G010/5G776 MIP</i>                                                   | 3 / 3.761                      | - / -                          | 1 / 0.332                      | 5 / 2.249                                                   | - / -                          | 5 / 2.249                      | 5 / 2.495                      | - / -                                  | 1 / 0.270                                                                 | 3 / 0.933                      | 31 / 11.019                    | 49 / 21.059                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                              | - / 3.761                      | - / -                          | - / 0.332                      | - / 2.249                                                   | - / -                          | - / 2.249                      | - / 2.495                      | - / -                                  | - / 0.270                                                                 | - / 0.933                      | - / 11.019                     | - / 21.059                     |  |
| <b>Support (All Modification Items)</b>                                                           |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| 2.1) CANES - Ashore Production Support (MIP)                                                      | - / 0.026                      | - / -                          | - / 0.017                      | - / 0.118                                                   | - / -                          | - / 0.118                      | - / 0.131                      | - / -                                  | - / 0.014                                                                 | - / 0.049                      | - / 0.580                      | - / 0.935                      |  |
| 2.2) CANES - Ashore Design Service Agent (MIP)                                                    | - / -                          | - / -                          | - / -                          | - / 0.098                                                   | - / -                          | - / 0.098                      | - / 0.080                      | - / 0.152                              | - / -                                                                     | - / -                          | - / -                          | - / 0.330                      |  |
| <i>Subtotal: Support</i>                                                                          | - / 0.026                      | - / -                          | - / 0.017                      | - / 0.216                                                   | - / -                          | - / 0.216                      | - / 0.211                      | - / 0.152                              | - / 0.014                                                                 | - / 0.049                      | - / 0.580                      | - / 1.265                      |  |
| <b>Installation</b>                                                                               |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| <i>Modification Item 1 of 1:</i> CANES - Ashore 5G010/5G776 MIP                                   | - / 0.427                      | - / 0.000                      | - / 0.100                      | - / 0.491                                                   | - / 0.000                      | - / 0.491                      | - / 0.804                      | - / 1.689                              | - / 0.076                                                                 | - / 0.294                      | - / 4.381                      | - / 8.262                      |  |
| <i>Subtotal: Installation</i>                                                                     | - / 0.427                      | - / -                          | - / 0.100                      | - / 0.491                                                   | - / -                          | - / 0.491                      | - / 0.804                      | - / 1.689                              | - / 0.076                                                                 | - / 0.294                      | - / 4.381                      | - / 8.262                      |  |
| <b>Total</b>                                                                                      |                                |                                |                                |                                                             |                                |                                |                                |                                        |                                                                           |                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                          | <b>4.214</b>                   | <b>0.000</b>                   | <b>0.449</b>                   | <b>2.956</b>                                                | <b>0.000</b>                   | <b>2.956</b>                   | <b>3.510</b>                   | <b>1.841</b>                           | <b>0.360</b>                                                              | <b>1.276</b>                   | <b>15.980</b>                  | <b>30.586</b>                  |  |



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|-----------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------|-----------|-----------|----------------|-----------|---------------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|----|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                      |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                  |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |                                |                                |                                |                                |                                                      |           |           |                |           | <b>Modification Number / Title:</b><br>2 / CANES - Ashore 5G010/5G776 MIP |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                         |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                               |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Modification Item 1 of 1:</b> CANES - Ashore 5G010/5G776 MIP                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Manufacturer Information</b>                                                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| Manufacturer Name: TBD (Competitive Procurement) <sup>(9)</sup>                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                | Manufacturer Location: TBD (Competitive Procurement) |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| Administrative Leadtime <i>(in Months)</i> : 1                                                                  |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                | Production Leadtime <i>(in Months)</i> : 5           |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Dates</b>                                                                                                    |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                              |                                |                                |                                | <b>FY 2020</b>                 |                                                      |           |           | <b>FY 2021</b> |           |                                                                           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |    |
| Contract Dates                                                                                                  |            |                                |                                |                                |                                | Feb 2018                       |                                |                                |                                | Nov 2018                                                    |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| Delivery Dates                                                                                                  |            |                                |                                |                                |                                | Jul 2018                       |                                |                                |                                | Apr 2019                                                    |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Installation Information</b>                                                                                 |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES-Ashore Production Units MIP        |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Installation Cost</b>                                                                                        |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                              | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
|                                                                                                                 |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| Prior Years                                                                                                     |            | 2 / 0.427                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | 0 / 0.000                      | 2 / 0.427                      |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2017                                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2018                                                                                                         |            | - / -                          | - / -                          | 1 / 0.100                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | 0 / 0.000                      | 1 / 0.100                      |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2019                                                                                                         |            | - / -                          | - / -                          | - / -                          | 1 / 0.347                      | 0 / 0.000                      | 1 / 0.347                      | 2 / 0.804                      | - / -                          | - / -                                                       | - / -                          | 0 / 0.000                      | 3 / 1.151                      |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2020                                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 5 / 1.689                      | - / -                                                       | - / -                          | 0 / 0.000                      | 5 / 1.689                      |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2021                                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2022                                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| FY 2023                                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| To Complete                                                                                                     |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| Total                                                                                                           |            | 2 / 0.427                      | - / -                          | 1 / 0.100                      | 1 / 0.347                      | 0 / 0.000                      | 1 / 0.347                      | 2 / 0.804                      | 5 / 1.689                      | - / -                                                       | - / -                          | 0 / 0.000                      | 11 / 3.367                     |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Installation Schedule</b>                                                                                    |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
|                                                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                              |                                |                                |                                | <b>FY 2020</b>                 |                                                      |           |           | <b>FY 2021</b> |           |                                                                           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |    |
|                                                                                                                 |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                   | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                                            | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                                 | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |    |
| In                                                                                                              | 2          | -                              | -                              | -                              | -                              | -                              | -                              | -                              | 1                              | -                                                           | -                              | -                              | 1                              | 2                              | -                                                    | -         | -         | 1              | 4         | -                                                                         | -         | -              | -         | -         | -         | -              | -         | -         | -         | -         | -          | 11 |
| Out                                                                                                             | 2          | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | 1                                                           | -                              | -                              | -                              | 1                              | 2                                                    | -         | -         | -              | 1         | 4                                                                         | -         | -              | -         | -         | -         | -              | -         | -         | -         | -         | -          | 11 |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Ashore Technical Insertion - MIP |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                             |                                |                                |                                |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| <b>Installation Cost</b>                                                                                        |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                              | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
|                                                                                                                 |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |
| Prior Years                                                                                                     |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                       | - / -                          | - / -                          | - / -                          |                                |                                                      |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |           |            |    |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                  |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2925 / CANES Intell |                                       |                                       |                                       |                |                        |           |           |                |           | <b>Modification Number / Title:</b><br>2 / CANES - Ashore 5G010/5G776 MIP |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>Modification Item 1 of 1:</b> CANES - Ashore 5G010/5G776 MIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CANES - Ashore Technical Insertion - MIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                              | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                       | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | 2 / 0.144                             | 0 / 0.000                             | 2 / 0.144                             | - / -                                 | - / -                                 | - / -                                                       | - / -                                 | 0 / 0.000                             | 2 / 0.144                             |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | - / -                                 | - / -                                 | - / -                                 |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 1 / 0.076                                                   | - / -                                 | 0 / 0.000                             | 1 / 0.076                             |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | 3 / 0.294                             | 0 / 0.000                             | 3 / 0.294                             |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                       | - / -                                 | 31 / 4.381                            | 31 / 4.381                            |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | 2 / 0.144                             | 0 / 0.000                             | 2 / 0.144                             | - / -                                 | - / -                                 | 1 / 0.076                                                   | 3 / 0.294                             | 31 / 4.381                            | 37 / 4.895                            |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                              |                                       |                                       |                                       | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b>                       | <b>Tot</b> |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                   | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                                 | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |                                 |            |  |  |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                           | -                                     | -                                     | 2                                     | -              | -                      | -         | -         | -              | -         | -                                                                         | -         | -              | -         | -         | 1         | -              | -         | -         | 3         | 31                              | 37         |  |  |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                           | -                                     | -                                     | -                                     | 2              | -                      | -         | -         | -              | -         | -                                                                         | -         | -              | -         | -         | -         | 1              | -         | -         | -         | 34                              | 37         |  |  |
| <b>Method of Implementation (Organic):</b> CANES - Ashore First Articles - MIP - Not Installed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           | <b>Installation Quantity:</b> 1 |            |  |  |
| <b>Footnotes:</b><br><sup>(7)</sup> Ashore procurement quantities are detailed as follows: Technical Training Equipment (TTE) - PY (2), FY18 (1), FY19-FY23 (0); Maritime Operation Center (MOC)(including Aegis Ashore) - FY17-FY18 (0); FY19(3), FY20 (5), FY21 (0). - A MOC is a fully operational system configuration. A TTE configuration is a subset of a MOC configuration. This scale difference accounts for the fluctuation in per unit costs across fiscal years commensurate with the procurement quantities outlined in above note. -TTE has no associated DSA requirements.<br><sup>(8)</sup> Production Lead Time is 8 months for First Articles. First Articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. All following articles of the same variant require a Production Lead Time of 5 months for Ashore units and 6 months for afloat units. Total Ashore lead time, including 1 month Admin lead time and 4 months for integration, assembly and testing, is 10 months. Ashore production lead times require one month less than Afloat due to minimized shock and vibration requirements for shore facilities. CANES First Articles are not installed. First Article average unit cost fluctuations are attributable to variances in system configuration requirements among shore sites. A shore training unit (TTE) has fewer users and runs fewer applications than a shore Maritime Operations Center (MOC). MOCs are larger in scale compared to the shore training sites and represent a super set of users, applications and connected systems.<br><sup>(9)</sup> FY2019 Contractor and location will be competed. |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                             |                                       |                                       |                                       |                |                        |           |           |                |           |                                                                           |           |                |           |           |           |                |           |           |           |                                 |            |  |  |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy | <b>Date:</b> February 2018 |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment | <b>P-1 Line Item Number / Title:</b><br>2940 / Gen Purp Elec Test Equip (GPETE) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|

|                                                   |                                        |                                     |
|---------------------------------------------------|----------------------------------------|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---------------------------------------------------|----------------------------------------|-------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ <i>in Millions</i> )                                                                                      | 13,370.529  | 6.428   | 6.861   | 5.985        | 0.000       | 5.985         | 7.759   | 7.680   | 7.374   | 7.522   | 37.068      | 13,457.206 |
| Less PY Advance Procurement (\$ <i>in Millions</i> )                                                                                   | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ <i>in Millions</i> )                                                                                         | 13,370.529  | 6.428   | 6.861   | 5.985        | 0.000       | 5.985         | 7.759   | 7.680   | 7.374   | 7.522   | 37.068      | 13,457.206 |
| Plus CY Advance Procurement (\$ <i>in Millions</i> )                                                                                   | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ <i>in Millions</i> )                                                                                    | 13,370.529  | 6.428   | 6.861   | 5.985        | 0.000       | 5.985         | 7.759   | 7.680   | 7.374   | 7.522   | 37.068      | 13,457.206 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |            |
| Initial Spares (\$ <i>in Millions</i> )                                                                                                | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Flyaway Unit Cost (\$ <i>in Dollars</i> )                                                                                              | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ <i>in Dollars</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |

**Description:**

This program provides for the initial procurement and distribution of General Purpose Electronic Test Equipment (GPETE). GPETE funding is provided to execute a detailed, multi-year sustainment and modernization plan for intermediate and organizational maintenance activities. GPETE is the equipment employed to ensure the accuracy of installation, alignment, and maintenance (preventative and routine) of all navy weapons systems ashore and afloat. The GPETE procured must meet rigid technical requirements, be cost effective and satisfy valid deficiencies in authorized allowance. Within the TMDE program, GPETE is classified under 4 functional groups: Fiber Optics (M6000), Signal Generators (M6001), Oscilloscopes & Meters (M6002), and Passive/Ancillary/Mechanical (M6004). The program also breaks out a fifth cost code (M6003) for non-equipment (i.e. labor) tasks including engineering, procurement and integrated logistics support. The TMDE program procures Commercial-off-the-Shelf (COTS; i.e. non-government manufactured test equipment that is available to the general public) GPETE to address the maintenance requirements across shipboard/shore-based activities and programs. Approximately 80% of the annual test equipment requirements are procured through the DOD Supply System, or MILSTRIP, process. When the program procures through MILSTRIP, DLA or NAVSUP WSS fills the requisition. The remaining 20% of procurements are Simplified Acquisition Purchase (SAP) contracts or purchase card (P-card) buys. SAP and P-card requisitions are utilized only for obsolete test equipment that is no longer available for procurement through MILSTRIP. Any variance in unit costs and quantity across fiscal years is attributable to the diversity and varying complexity of the Commercial-off-the-Shelf GPETE to be procured from year to year to address the maintenance requirements across shipboard/shore-based activities and programs. A portion of the cost growth from FY to FY within the cost codes can be attributed to an average industry cost growth of approximately 2%. Any average unit cost code growth beyond this 2% would be the result of planned procurements of larger quantities of more complex/capable GPETE and/or modernization to more complex/capable GPETE, which tend to be more expensive. The Navy's inventory of GPETE is approaching obsolescence and requires modernization to avoid deterioration in the accuracy of our weapons systems. Many models are no longer in production, so replacement equipment must be purchased from newer model inventory, some of which have a greater unit cost. Failure to maintain accurate test equipment will cause our weapons systems to perform below expectations. The impacts would range from premature mechanical failures due to incorrectly installed mechanical components, to radar and missile operational inaccuracies due to improperly set components. A defined, multi-year modernization plan for test equipment is in place. Not modernizing/procuring test equipment will drastically impact the overall health of the Navy and cause a major break in the Fleet readiness kill chain.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                 |                                       |                    |              |                                               |                                              |                                                                                 |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                            |                                       |                    |              |                                               |                                              | <b>P-1 Line Item Number / Title:</b><br>2940 / Gen Purp Elec Test Equip (GPETE) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                          |                                       |                    |              | <b>Program Elements for Code B Items:</b> N/A |                                              |                                                                                 | <b>Other Related Program Elements:</b> N/A   |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                              |                                       |                    |              |                                               |                                              |                                                                                 |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                          |                                       |                    |              |                                               | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                  | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                               | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b> | <b>MDAP/MAIS Code</b>                         | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                    | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                             | Gen Purp Elec Test Equip (GPETE)      | P-5a               |              |                                               | - / 13,370.529                               | - / 6.428                                                                       | - / 6.861                                    | - / 5.985                                    | - / -                                        | - / 5.985                                    |
| <b>P-40</b>                                                                                                                                                                                                                                       | <b>Total Gross/Weapon System Cost</b> |                    |              |                                               | <b>- / 13,370.529</b>                        | <b>- / 6.428</b>                                                                | <b>- / 6.861</b>                             | <b>- / 5.985</b>                             | <b>- / 0.000</b>                             | <b>- / 5.985</b>                             |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown. |                                       |                    |              |                                               |                                              |                                                                                 |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                            |                                       |                    |              |                                               |                                              |                                                                                 |                                              |                                              |                                              |                                              |

## Justification:

The FY 2019 funding request was reduced by \$1.152 million to account for the availability of prior year execution balances.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                       |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   | Date: February 2018                                         |            |                   |                |            |                   |       |
|---------------------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|--------------------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|-------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|-------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                         |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2940 / Gen Purp Elec Test Equip (GPETE) |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>Gen Purp Elec Test Equip (GPETE) |            |                   |                |            |                   |       |
| Item Number / Title [DODIC]                                                                       | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                          |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                                 |            |                   | FY 2019 Total  |            |                   |       |
|                                                                                                   |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                               | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                              | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |       |
| 1) M6000 FIBER OPTICS                                                                             |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |
| 1.1) FIBER OPTICS AND DATA COMM <sup>(†)</sup>                                                    |       | A              |                | 12,442.71  | 192               | 2.389          | 6,517.00                                                                 | 35                | 0.228          | 6,594.59   | 37                | 0.244          | 6,625.00   | 32                | 0.212                                                       | -          | -                 | -              | 6,625.00   | 32                | 0.212 |
| Subtotal: 1) M6000 FIBER OPTICS                                                                   |       |                | -              | -          | 2.389             | -              | -                                                                        | 0.228             | -              | -          | 0.244             | -              | -          | 0.212             | -                                                           | -          | -                 | -              | -          | 0.212             |       |
| 2) M6001 SIGNAL GENERATORS                                                                        |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |
| 2.1) SIGNAL GENERATORS & ANALYZERS <sup>(†)</sup>                                                 |       | A              |                | 11,564.14  | 686               | 7.933          | 9,547.95                                                                 | 73                | 0.697          | 12,400.00  | 60                | 0.744          | 12,461.54  | 52                | 0.648                                                       | -          | -                 | -              | 12,461.54  | 52                | 0.648 |
| Subtotal: 2) M6001 SIGNAL GENERATORS                                                              |       |                | -              | -          | 7.933             | -              | -                                                                        | 0.697             | -              | -          | 0.744             | -              | -          | 0.648             | -                                                           | -          | -                 | -              | -          | 0.648             |       |
| 3) M6002 OSCILLSCPS, METERS                                                                       |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |
| 3.1) OSCILLSCPS, METERS&COUNTERS <sup>(†)</sup>                                                   |       | A              |                | 4,252.28   | 4,162             | 17.698         | 3,125.37                                                                 | 1,005             | 3.141          | 3,383.45   | 991               | 3.353          | 3,382.38   | 865               | 2.926                                                       | -          | -                 | -              | 3,382.38   | 865               | 2.926 |
| Subtotal: 3) M6002 OSCILLSCPS, METERS                                                             |       |                | -              | -          | 17.698            | -              | -                                                                        | 3.141             | -              | -          | 3.353             | -              | -          | 2.926             | -                                                           | -          | -                 | -              | -          | 2.926             |       |
| 4) M6003 PROC ENGR AND DOCUMENTATION                                                              |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |
| 4.1) PROC ENG AND DOCUMENTATION                                                                   |       | A              |                | -          | -                 | 8.096          | -                                                                        | -                 | 0.743          | -          | -                 | 0.792          | -          | -                 | 0.691                                                       | -          | -                 | -              | -          | -                 | 0.691 |
| Subtotal: 4) M6003 PROC ENGR AND DOCUMENTATION                                                    |       |                | -              | -          | 8.096             | -              | -                                                                        | 0.743             | -              | -          | 0.792             | -              | -          | 0.691             | -                                                           | -          | -                 | -              | -          | 0.691             |       |
| 5) M6004 PASSIVE ANCILLARY AND MECHANICAL                                                         |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |
| 5.1) PASSIVE ANCILLARY AND MECHANICAL <sup>(†)</sup>                                              |       | A              |                | 4,328K     | 3,081             | 13,334.413     | 1,547.80                                                                 | 1,046             | 1.619          | 1,674.42   | 1,032             | 1.728          | 1,674.08   | 901               | 1.508                                                       | -          | -                 | -              | 1,674.08   | 901               | 1.508 |
| Subtotal: 5) M6004 PASSIVE ANCILLARY AND MECHANICAL                                               |       |                | -              | -          | 13,334.413        | -              | -                                                                        | 1.619             | -              | -          | 1.728             | -              | -          | 1.508             | -                                                           | -          | -                 | -              | -          | 1.508             |       |
| Total                                                                                             |       |                | -              | -          | 13,370.529        | -              | -                                                                        | 6.428             | -              | -          | 6.861             | -              | -          | 5.985             | -                                                           | -          | -                 | -              | -          | 5.985             |       |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding. |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |
| <sup>(†)</sup> indicates the presence of a P-5a                                                   |       |                |                |            |                   |                |                                                                          |                   |                |            |                   |                |            |                   |                                                             |            |                   |                |            |                   |       |

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| <b>Exhibit P-5a, Procurement History and Planning: PB 2019 Navy</b>              |             |      |                         |                                                                                 |                 |               |                              |               | <b>Date:</b> February 2018                                   |                        |                               |                   |
|----------------------------------------------------------------------------------|-------------|------|-------------------------|---------------------------------------------------------------------------------|-----------------|---------------|------------------------------|---------------|--------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |             |      |                         | <b>P-1 Line Item Number / Title:</b><br>2940 / Gen Purp Elec Test Equip (GPETE) |                 |               |                              |               | <b>Aggregated Items:</b><br>Gen Purp Elec Test Equip (GPETE) |                        |                               |                   |
| Item Number / Title [DODIC]                                                      | O<br>C<br>O | FY   | Contractor and Location | Method/Type<br>or<br>Funding Vehicle                                            | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                            | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>1) M6000 FIBER OPTICS</b>                                                     |             |      |                         |                                                                                 |                 |               |                              |               |                                                              |                        |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2012 | NSWC / CHINA LAKE       | WR                                                                              | SEAL BEACH      | Nov 2011      | Mar 2012                     | 30            | 10,000.00                                                    | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2013 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2012      | Mar 2013                     | 29            | 10,000.00                                                    | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2014 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2013      | Mar 2014                     | 34            | 6,882.35                                                     | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2015 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2014      | Mar 2015                     | 34            | 6,561.24                                                     | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2016 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Feb 2016      | Jun 2016                     | 35            | 7,061.46                                                     | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2017 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2016      | Mar 2017                     | 35            | 6,517.00                                                     | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2018 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2017      | Mar 2018                     | 37            | 6,594.59                                                     | Y                      |                               |                   |
| 1.1) FIBER OPTICS AND DATA COMM                                                  |             | 2019 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2018      | Mar 2019                     | 32            | 6,625.00                                                     | Y                      |                               |                   |
| <b>2) M6001 SIGNAL GENERATORS</b>                                                |             |      |                         |                                                                                 |                 |               |                              |               |                                                              |                        |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2012 | NSWC / CHINA LAKE       | WR                                                                              | SEAL BEACH      | Nov 2011      | Mar 2012                     | 186           | 16,000.00                                                    | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2013 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Dec 2012      | Apr 2013                     | 171           | 16,000.00                                                    | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2014 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Dec 2013      | Apr 2014                     | 72            | 10,166.67                                                    | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2015 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2014      | Mar 2015                     | 71            | 9,594.16                                                     | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2016 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Feb 2016      | Jun 2016                     | 71            | 10,629.31                                                    | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2017 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2016      | Mar 2017                     | 73            | 9,547.95                                                     | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2018 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2017      | Mar 2018                     | 60            | 12,400.00                                                    | Y                      |                               |                   |
| 2.1) SIGNAL GENERATORS & ANALYZERS                                               |             | 2019 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2018      | Mar 2019                     | 52            | 12,461.54                                                    | Y                      |                               |                   |
| <b>3) M6002 OSCILLSCPS, METERS</b>                                               |             |      |                         |                                                                                 |                 |               |                              |               |                                                              |                        |                               |                   |
| 3.1) OSCILLSCPS, METERS&COUNTERS                                                 |             | 2012 | NSWC / CHINA LAKE       | WR                                                                              | SEAL BEACH      | Nov 2011      | Mar 2012                     | 545           | 4,000.00                                                     | Y                      |                               |                   |
| 3.1) OSCILLSCPS, METERS&COUNTERS                                                 |             | 2013 | NSWC / CHINA LAKE       | WR                                                                              | CHINA LAKE      | Nov 2012      | Mar 2013                     | 501           | 4,000.00                                                     | Y                      |                               |                   |

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |             |      |                                                                                 |                                      |                 |               |                              |               | <b>Date:</b> February 2018                                   |                        |                               |                   |
|----------------------------------------------------------------------------------|-------------|------|---------------------------------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|--------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |             |      | <b>P-1 Line Item Number / Title:</b><br>2940 / Gen Purp Elec Test Equip (GPETE) |                                      |                 |               |                              |               | <b>Aggregated Items:</b><br>Gen Purp Elec Test Equip (GPETE) |                        |                               |                   |
| Item Number / Title [DODIC]                                                      | O<br>C<br>O | FY   | Contractor and Location                                                         | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                            | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 3.1) OSCILLSCPS,<br>METERS&COUNTERS                                              |             | 2014 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2013      | Mar 2014                     | 851           | 3,235.02                                                     | Y                      |                               |                   |
| 3.1) OSCILLSCPS,<br>METERS&COUNTERS                                              |             | 2015 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2014      | Mar 2015                     | 846           | 3,630.01                                                     | Y                      |                               |                   |
| 3.1) OSCILLSCPS,<br>METERS&COUNTERS                                              |             | 2016 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Feb 2016      | Jun 2016                     | 846           | 4,021.67                                                     | Y                      |                               |                   |
| 3.1) OSCILLSCPS,<br>METERS&COUNTERS                                              |             | 2017 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2016      | Mar 2017                     | 1,005         | 3,125.37                                                     | Y                      |                               |                   |
| 3.1) OSCILLSCPS,<br>METERS&COUNTERS                                              |             | 2018 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2017      | Mar 2018                     | 991           | 3,383.45                                                     | Y                      |                               |                   |
| 3.1) OSCILLSCPS,<br>METERS&COUNTERS                                              |             | 2019 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2018      | Mar 2019                     | 865           | 3,382.38                                                     | Y                      |                               |                   |
| <b>5) M6004 PASSIVE ANCILLARY AND MECHANICAL</b>                                 |             |      |                                                                                 |                                      |                 |               |                              |               |                                                              |                        |                               |                   |
| 5.1) PASSIVE ANCILLARY AND<br>MECHANICAL                                         |             | 2014 | NSWC / CHINA LAKE                                                               | WR                                   | SEAL BEACH      | Nov 2013      | Mar 2014                     | 1,029         | 12,955.30                                                    | Y                      |                               |                   |
| 5.1) PASSIVE ANCILLARY AND<br>MECHANICAL                                         |             | 2015 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2014      | Mar 2015                     | 1,026         | 1,542.83                                                     | Y                      |                               |                   |
| 5.1) PASSIVE ANCILLARY AND<br>MECHANICAL                                         |             | 2016 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Feb 2016      | Oct 2016                     | 1,026         | 1,709.29                                                     | Y                      |                               |                   |
| 5.1) PASSIVE ANCILLARY AND<br>MECHANICAL                                         |             | 2017 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2016      | Jul 2017                     | 1,046         | 1,547.80                                                     | Y                      |                               |                   |
| 5.1) PASSIVE ANCILLARY AND<br>MECHANICAL                                         |             | 2018 | NSWC / CHINA LAKE                                                               | WR                                   | CHINA LAKE      | Nov 2017      | Mar 2018                     | 1,032         | 1,674.42                                                     | Y                      |                               |                   |
| 5.1) PASSIVE ANCILLARY AND<br>MECHANICAL                                         |             | 2019 | NSWC / CHINA LAKE                                                               | WR                                   | ** NO PCO **    | Nov 2018      | Mar 2019                     | 901           | 1,674.08                                                     | Y                      |                               |                   |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

**Appropriation / Budget Activity / Budget Sub Activity:**  
1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment

**P-1 Line Item Number / Title:**  
2950 / Network Tactical Common Data Link (CDL)

**ID Code** (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0205604N **Other Related Program Elements:** N/A

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years  | FY 2017      | FY 2018      | FY 2019 Base | FY 2019 OCO  | FY 2019 Total | FY 2020      | FY 2021      | FY 2022       | FY 2023       | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|---------------|---------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -            | -            | -            | -            | -            | -             | -            | -            | -             | -             | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 0.290        | 0.000        | 8.081        | 5.413        | 0.000        | 5.413         | 5.282        | 0.000        | 20.048        | 20.458        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -            | -            | -            | -            | -            | -             | -            | -            | -             | -             | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 0.290        | 0.000        | 8.081        | 5.413        | 0.000        | 5.413         | 5.282        | 0.000        | 20.048        | 20.458        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -            | -            | -            | -            | -            | -             | -            | -            | -             | -             | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>0.290</b> | <b>0.000</b> | <b>8.081</b> | <b>5.413</b> | <b>0.000</b> | <b>5.413</b>  | <b>5.282</b> | <b>0.000</b> | <b>20.048</b> | <b>20.458</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |              |              |              |              |              |               |              |              |               |               |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -            | -            | -            | -            | -            | -             | -            | -            | -             | -             | -                 | -                 |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                    | -            | -            | -            | -            | -            | -             | -            | -            | -             | -             | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                        | -            | -            | -            | -            | -            | -             | -            | -            | -             | -             | -                 | -                 |

## Description:

Communications Data Link System Technical Refresh (CDLS TR) provides fielding link management computer upgrades to meet Fleet Windows 10 Operating System IA requirements, a second 360 degree data link, as well as the inclusion of digital distribution of Intelligence Surveillance and Reconnaissance (ISR), Full Motion Video (FMV), and Anti-Submarine Warfare (ASW) data in both Cypher Text (CT) and Plain Text (PT) to Automated Digital Network System (ADNS) for shipboard dissemination to support Anti-Access/Area Denial (A2AD). CDLS TR supports various Common Data Link (CDL) air platforms including MH-60R, MQ-4 Triton, MQ-8B/C Fire Scout, P-3, P-8, and MQ-25 Stingray, to include command and control of the aircraft during flight operations. The CDLS TR upgrade includes a Flight Deck Checkout test link between aircraft on the deck through CDLS to end-user prior to flight operations to ensure end-to-end connectivity of organic assets prior to missions.

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------|----------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                         |                    |                                                    |                       |                                                                                        |                                              | <b>Date:</b> February 2018                   |                                              |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                         |                    |                                                    |                       | <b>P-1 Line Item Number / Title:</b><br>2950 / Network Tactical Common Data Link (CDL) |                                              |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |                    | <b>Program Elements for Code B Items:</b> 0205604N |                       |                                                                                        | <b>Other Related Program Elements:</b> N/A   |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |                    |                                                    |                       |                                                                                        |                                              |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |                    |                                                    |                       | <b>Prior Years</b>                                                                     | <b>FY 2017</b>                               | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Title*</b>                           | <b>Subexhibits</b> | <b>ID CD</b>                                       | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                           | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Network Tactical Common Data Link (CDL) |                    |                                                    |                       | - / 0.290                                                                              | - / -                                        | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 / CDLS Tech Refresh (TBD)             |                    |                                                    |                       | - / 0.000                                                                              | - / 0.000                                    | - / 8.081                                    | - / 5.413                                    | - / 0.000                                    | - / 5.413                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Total Gross/Weapon System Cost</b>   |                    |                                                    |                       | <b>- / 0.290</b>                                                                       | <b>- / 0.000</b>                             | <b>- / 8.081</b>                             | <b>- / 5.413</b>                             | <b>- / 0.000</b>                             | <b>- / 5.413</b>                             |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |                    |                                                    |                       | <b>FY 2020</b>                                                                         | <b>FY 2021</b>                               | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Title*</b>                           | <b>Subexhibits</b> | <b>ID CD</b>                                       | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                           | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Network Tactical Common Data Link (CDL) |                    |                                                    |                       | - / -                                                                                  | - / -                                        | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 / CDLS Tech Refresh (TBD)             |                    |                                                    |                       | - / 5.282                                                                              | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 0.000                                    | - / 18.776                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Total Gross/Weapon System Cost</b>   |                    |                                                    |                       | <b>- / 5.282</b>                                                                       | <b>- / 0.000</b>                             | <b>- / 20.048</b>                            | <b>- / 20.458</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| <p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>                                                                                                                                                                                                                                                                                                                                           |                                         |                    |                                                    |                       |                                                                                        |                                              |                                              |                                              |                                              |                                              |
| <p><b>Justification:</b><br/> FY19 Funding supports procurement and installation of 3 Communication Data Link System (CDLS) Technical Refresh (TR) systems for CVN platforms. Due to increased fleet Common Data Link (CDL) operations and obsolescence issues, a technical refresh is required to extend the life of the system beyond its intended design. CDLS TR addresses whole system reliability, sub-component obsolescence, and emerging Anti-Access/Area Denial (A2AD) Fleet requirements that are significantly degrading Fleet readiness, including Operational Availability (Ao), and system supportability. CDLS TR also provides IA/Cyber security upgrades to Windows 10 OS.</p> |                                         |                    |                                                    |                       |                                                                                        |                                              |                                              |                                              |                                              |                                              |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |  |       |                |                |            |                   |                |                                                                                 |                   |                |            |                   |                |            |                   | Date: February 2018                                                |            |                   |                |            |                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10   |  |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2950 / Network Tactical Common Data Link (CDL) |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>Network Tactical Common Data Link (CDL) |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 |  | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                                 |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                                        |            |                   | FY 2019 Total  |            |                   |
|                                                                             |  |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                                      | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                     | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) Network Tactical Common Data Link (CDL)                                  |  |       |                |                |            |                   |                |                                                                                 |                   |                |            |                   |                |            |                   |                                                                    |            |                   |                |            |                   |
| 1) LINK-16 Antennas                                                         |  | A     |                | 145,000.00     | 2          | 0.290             | -              | -                                                                               | -                 | -              | -          | -                 | -              | -          | -                 | -                                                                  | -          | -                 | -              | -          |                   |
| Subtotal: 1) Network Tactical Common Data Link (CDL)                        |  |       |                | -              | -          | 0.290             | -              | -                                                                               | -                 | -              | -          | -                 | -              | -          | -                 | -                                                                  | -          | -                 | -              | -          |                   |
| Total                                                                       |  |       |                | -              | -          | 0.290             | -              | -                                                                               | -                 | -              | -          | -                 | -              | -          | -                 | -                                                                  | -          | -                 | -              | -          |                   |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

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|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                                        | <b>Date:</b> February 2018                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2950 / Network Tactical Common Data Link (CDL) | <b>Modification Number / Title:</b><br>1 / CDLS Tech Refresh |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 0.000   | 8.081   | 5.413        | 0.000       | 5.413           | 5.282   | 0.000   | 0.000   | 0.000   | 0.000       | 18.776 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 0.000   | 8.081   | 5.413        | 0.000       | 5.413           | 5.282   | 0.000   | 0.000   | 0.000   | 0.000       | 18.776 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 0.000   | 8.081   | 5.413        | 0.000       | 5.413           | 5.282   | 0.000   | 0.000   | 0.000   | 0.000       | 18.776 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Communications Data Link System Technical Refresh (CDLS TR) provides fielding link management computer upgrades to meet Fleet Windows 10 Operating System IA requirements, a second 360 degree data link, as well as the inclusion of digital distribution of Intelligence Surveillance and Reconnaissance (ISR), Full Motion Video (FMV), and Anti-Submarine Warfare (ASW) data in both Cypher Text (CT) and Plain Text (PT) to Automated Digital Network System (ADNS) for shipboard dissemination to support Anti-Access/Area Denial (A2AD). CDLS TR supports various Common Data Link (CDL) air platforms including MH-60R, MQ-4 Triton, MQ-8B/C Fire Scout, P-3, P-8, and MQ-25 Stingray, to include command and control of the aircraft during flight operations. The CDLS TR upgrade includes a Flight Deck Checkout test link between aircraft on the deck through CDLS to end-user prior to flight operations to ensure end-to-end connectivity of organic assets prior to missions.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                                 |                                |                                |                                | Date: February 2018                                   |                                |                                |                                |                                |             |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10 |                                |                                |                                | P-1 Line Item Number / Title:<br>2950 / Network Tactical Common Data Link (CDL) |                                |                                |                                | Modification Number / Title:<br>1 / CDLS Tech Refresh |                                |                                |                                |                                |             |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                 |                                |                                | MDAP/MAIS Code:                |                                                       |                                |                                |                                |                                |             |
| Models of Systems Affected: [No Model Specified]                          |                                |                                | Modification Type: TBD         |                                                                                 |                                |                                |                                | Related RDT&E PEs:                                    |                                |                                |                                |                                |             |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                    | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                               | FY 2022                        | FY 2023                        | To Complete                    | Total                          |             |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |             |
| Procurement                                                               |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| Modification Item 1 of 1: CDLS Tech Refresh                               |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| A Kits                                                                    |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| Recurring                                                                 |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| 1.1.1) CDLS TR Procurement - NonOrganic                                   |                                | - / -                          | - / -                          | 4 / 5.114                                                                       | 3 / 3.836                      | - / -                          | 3 / 3.836                      | 3 / 3.836                                             | - / -                          | - / -                          | - / -                          | - / -                          | 10 / 12.786 |
| Subtotal: Recurring                                                       |                                | - / 0.000                      | - / -                          | - / 5.114                                                                       | - / 3.836                      | - / -                          | - / 3.836                      | - / 3.836                                             | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 12.786  |
| Subtotal: CDLS Tech Refresh                                               |                                | - / -                          | - / -                          | 4 / 5.114                                                                       | 3 / 3.836                      | - / -                          | 3 / 3.836                      | 3 / 3.836                                             | - / -                          | - / -                          | - / -                          | - / -                          | 10 / 12.786 |
| Subtotal: Procurement, All Modification Items                             |                                | - / 0.000                      | - / -                          | - / 5.114                                                                       | - / 3.836                      | - / -                          | - / 3.836                      | - / 3.836                                             | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 12.786  |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| 2.1) CDLS TR DSA <sup>(1)</sup>                                           |                                | - / -                          | - / -                          | - / 0.280                                                                       | - / 0.030                      | - / -                          | - / 0.030                      | - / 0.015                                             | - / -                          | - / -                          | - / -                          | - / -                          | - / 0.325   |
| 2.2) CDLS TR Production Support                                           |                                | - / -                          | - / -                          | - / 0.287                                                                       | - / 0.099                      | - / -                          | - / 0.099                      | - / 0.004                                             | - / -                          | - / -                          | - / -                          | - / -                          | - / 0.390   |
| Subtotal: Support                                                         |                                | - / 0.000                      | - / -                          | - / 0.567                                                                       | - / 0.129                      | - / -                          | - / 0.129                      | - / 0.019                                             | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 0.715   |
| Installation                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| Modification Item 1 of 1: CDLS Tech Refresh                               |                                | - / 0.000                      | - / 0.000                      | - / 2.400                                                                       | - / 1.448                      | - / 0.000                      | - / 1.448                      | - / 1.427                                             | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 5.275   |
| Subtotal: Installation                                                    |                                | - / 0.000                      | - / -                          | - / 2.400                                                                       | - / 1.448                      | - / -                          | - / 1.448                      | - / 1.427                                             | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 5.275   |
| Total                                                                     |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |
| Total Cost (Procurement + Support + Installation)                         |                                | 0.000                          | 0.000                          | 8.081                                                                           | 5.413                          | 0.000                          | 5.413                          | 5.282                                                 | 0.000                          | 0.000                          | 0.000                          | 0.000                          | 18.776      |
|                                                                           |                                |                                |                                |                                                                                 |                                |                                |                                |                                                       |                                |                                |                                |                                |             |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|----------------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|------------------------------------|-----------|--------------------------------|----------------|--------------------------------|--------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                            |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                             |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2950 / Network Tactical Common Data Link (CDL) |                                |           |                                |                |                                    |           |                                |                |                                | <b>Modification Number / Title:</b><br>1 / CDLS Tech Refresh |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                | <b>MDAP/MAIS Code:</b>             |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CDLS Tech Refresh                                                                                                                                                                                                                                                                                                                                    |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| Manufacturer Name: CUBIC                                                                                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                | Manufacturer Location: California  |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                | Production Leadtime (in Months): 3 |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                          |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                         |                                |           |                                | <b>FY 2020</b> |                                    |           |                                | <b>FY 2021</b> |                                |                                                              |                                | <b>FY 2022</b> |                                |           |            | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                | Jan 2018       |                                |           |                                | Jan 2019                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                | Apr 2018       |                                |           |                                | Apr 2019                                                                               |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: CDLS TR Procurement                                                                                                                                                                                                                                                                                            |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                              |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                        | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                     |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                              | <b>To Complete</b>             |                | <b>Total</b>                   |           |            |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                       |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)     |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                              | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |            |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                           |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | 4 / 2.400                      |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | 0 / 0.000                      |           | 4 / 2.400  |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | 3 / 1.448                      |           | 0 / 0.000                      |                                                                                        | 3 / 1.448                      |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | 0 / 0.000                      |           | 3 / 1.448  |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | 3 / 1.427                      |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | 0 / 0.000                      |           | 3 / 1.427  |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                               |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                           |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                        | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | 4 / 2.400                      |                | 3 / 1.448                      |           | 0 / 0.000                      |                                                                                        | 3 / 1.448                      |           | 3 / 1.427                      |                | - / -                              |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | 0 / 0.000                      |           | 10 / 5.275 |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                       | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                         |                                |           |                                | <b>FY 2020</b> |                                    |           |                                | <b>FY 2021</b> |                                |                                                              |                                | <b>FY 2022</b> |                                |           |            | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                       |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                              | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                          | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                    | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>  | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                    | -          | -                              | -                              | -         | -                              | -              | -                              | -         | 2                              | 2                                                                                      | -                              | -         | 1                              | 2              | -                                  | -         | 1                              | 2              | -                              | -                                                            | -                              | -              | -                              | -         | -          | -              | -         | -         | -         | -         |            |
| Out                                                                                                                                                                                                                                                                                                                                                                                   | -          | -                              | -                              | -         | -                              | -              | -                              | -         | -                              | 2                                                                                      | 2                              | -         | -                              | 1              | 2                                  | -         | -                              | 1              | 2                              | -                                                            | -                              | -              | -                              | -         | -          | -              | -         | -         | -         |           |            |
| <b>Footnotes:</b><br><sup>(1)</sup> Production and DSA costs were reduced as the program plans to leverage top side studies and ship installation drawings (SIDs) created for FY18 for similarly configured CVN platforms. The higher FY18 installation cost is attributed to first of class install for CDLS TR; FY19 and out cost reflect anticipated learning curve going forward. |            |                                |                                |           |                                |                |                                |           |                                |                                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                              |                                |                |                                |           |            |                |           |           |           |           |            |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|---------------|---------------------------------------------------------------------------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |               |                                                                           | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             |               | P-1 Line Item Number / Title:<br>2960 / Integ Combat System Test Facility |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         | Program Elements for Code B Items: N/A |              |             |               |                                                                           | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |         |                                        |              |             |               |                                                                           |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020                                                                   | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -           | -       | -                                      | -            | -           | -             | -                                                                         | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 35.546      | 8.376   | 5.019                                  | 6.251        | 0.000       | 6.251         | 6.167                                                                     | 5.981                               | 6.135   | 6.276   | -           | 79.751     |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -           | -       | -                                      | -            | -           | -             | -                                                                         | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 35.546      | 8.376   | 5.019                                  | 6.251        | 0.000       | 6.251         | 6.167                                                                     | 5.981                               | 6.135   | 6.276   | -           | 79.751     |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -           | -       | -                                      | -            | -           | -             | -                                                                         | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 35.546      | 8.376   | 5.019                                  | 6.251        | 0.000       | 6.251         | 6.167                                                                     | 5.981                               | 6.135   | 6.276   | -           | 79.751     |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |                                        |              |             |               |                                                                           |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -           | 0.195   | 0.250                                  | 0.150        | -           | 0.150         | 0.171                                                                     | 0.184                               | 0.162   | 0.221   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -             | -                                                                         | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -           | -       | -                                      | -            | -           | -             | -                                                                         | -                                   | -       | -       | -           | -          |
| Description:<br>The FY 2019 funding request was reduced by \$.033 million to reflect the Department of Navy’s effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.<br><br>This program supports various Navy Land Based Test Sites (LBTS) required to support integration and interoperability testing. Sites include, but are not limited to: Naval Surface Warfare Center (NSWC) Dahlgren, Surface Combat System Center (SCSC) Wallops Island, and NSWC Dam Neck.<br><br>The United States Navy has a requirement to fully test and certify computer programs for maturity, Interoperability and Integration (I&I) prior to delivery to the Fleet. Commander, U.S. Fleet Forces Command (CFFC) provided specific direction to develop a unified modernization process and certify all combat system baselines for integration and interoperability as an integral step in the CNO Optimized Fleet Response Plan (O-FRP). Various Navy facilities, serving as LBTS, conduct the required testing in support of CVN, DDG, CG, LHD, LHA, LPD17 and LSD class ships. These sites also comprise the Navy’s Distributed Integration & Interoperability Assessment Capability (DIIAC) (supported through the use of JMETC network) alliance, which performs Interoperability Assessment and Systems Engineering Events (SEEs) for deploying Strike Groups.<br><br>These facilities also provide combat system in-service support to respond to emergent fleet problems. This capability tests and certifies new combat system baseline in a lab based environment, which has significantly reduced the cost of corrective action and shifted the burden of problem discovery away from the operator at sea. It also provides support to the acquisition community to conduct interoperability (shift to the left) testing earlier in the acquisition cycle.<br><br>As existing system experience parts obsolescence issues and tech refresh updates, the LBTS must procure and install existing test beds to accurately replicate the Command, Control, Communication, Computer, Combat System and Intelligence (C5I) configuration that are designed for the fleet. In addition, new combat systems architectures are under development for new ship classes such as LCS, CVN 78, DDG 1000, as well as new Open Architecture (OA) variants of legacy suites. Procurement of production representative systems of these OA combat systems being delivered to operational fleet units is critical to ensure that testing and subsequent certification of both current and newly installed combat systems is in accordance with NAVSEAINST 9410.2 Naval Warfare Systems Certification Policy (NWSCP) and the O-FRP Program. |             |         |                                        |              |             |               |                                                                           |                                     |         |         |             |            |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        | Date: February 2018                                                       |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        | P-1 Line Item Number / Title:<br>2960 / Integ Combat System Test Facility |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                                       |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |                                                                           |
| <p>The basic procurement outlined herein is directed at expanding various facilities capability to support Interoperability Integration and Stressful Endurance testing. Procurement requirements are directly tied to the interoperability testing schedule and establish independence between test beds allowing for parallel certification efforts. Procurements are required to build the necessary test beds and for laboratory support equipment. This budget procures lab support equipment that various facilities are able to support the new tactical subsystems that use COTS equipment.</p> <p>In addition, the basic program provides for equipment/upgrades for the Navy's Distributed Integration &amp; Interoperability Assessment Capability (DIIAC) needed to conduct interoperability assessment testing. The DIIAC consists of 14 land based sites networked to certify computer programs prior to their delivery to the fleet and provides support to the acquisition community to conduct interoperability and integration (shift to the left) testing earlier in the acquisition cycle. Interoperability Assessment and Stressful Endurance testing is required for all deploying strike groups per the Joint Fleet Instruction.</p> <p>[P40A / M8400 - SESEF Electronic Equipment]: The Shipboard Electronic Systems Evaluation Facilities (SESEF) are Navy owned and operated test sites. The SESEF Program mission is to provide electromagnetic system tests and evaluations to afloat and shore commands for upgraded systems, to validate system performance following new construction and overhaul/availability, and to provide real-time assessment of material readiness in an operational environment. Also provided are: system modernization and integration, system and equipment component procurement and software (S/W) upgrades for test systems to include for Tactical Control and Navigation (TACAN), Antenna Radiation Pattern systems (ARP), Information Friend or Foe (IFF), Direction Finder (DF)/Radio Direction Finder (RDF), LINK 11/16, Electronic Warfare/ Electronic Attack (EW/EA) and HF/VHF/UHF communication systems including secure voice. SESEFs have been used effectively to conduct TACAN certifications, support AN/SLQ-32 Electronic Warfare (EW) Planned Maintenance System (PMS), Ship Signals Exploitation Equipment (SSEE) and to detect and isolate shipboard system deficiencies leading to maintenance action to increase ship material readiness at the completion of construction, delivery availabilities, during routine ship operations, and prior to deployment.</p> <p>[P40A / M8500 - Interoperability Assessment Equipment]: M8500 - INTEROPERABILITY ASSESSMENT EQUIPMENT KNOWN AS DISTRIBUTED INTEGRATION &amp; INTEROPERABILITY ASSESSMENT CAPABILITY (DIIAC) Procures upgrades to support the 14 sites that comprise the Navy's DIIAC sites. Procures hardware that provides the DIIAC Operations Center (DOC) the ability to support monitoring and execution of events providing data collection and distribution. Funds are also allocated for site upgrades to meet current standards and allow scalability for DIIAC requirements to enable the DIIAC to maintain efficiency and product improvement to interface with other Joint communities using Joint Mission Environment Test Community (JMETC) network. Focused on the force-level impact of new systems and platforms under development, the DIIAC supports testing that ensures NAVSEA/PEOs are delivering mature and interoperable warfare systems at the Platform and Strike Group levels, with NAVSEA providing Strike Force Interoperability Certification and Assessments. This is the only such testing of combat systems and C5I configuration items prior to shipboard delivery for operational use.</p> |                                        |                                                                           |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                |                                       |             |                                               |                |                                          |                                                                                  |                                          | <b>Date:</b> February 2018               |                                          |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|-----------------------------------------------|----------------|------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                           |                                       |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>2960 / Integ Combat System Test Facility |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                         |                                       |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                                       |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                             |                                       |             |                                               |                |                                          |                                                                                  |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                |                                       |             |                                               |                | Prior Years                              | FY 2017                                                                          | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                                     | Title*                                | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                         | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                                            | ICSTF Program                         |             |                                               |                | - / 35.546                               | - / 8.376                                                                        | - / 5.019                                | - / 6.251                                | - / -                                    | - / 6.251                                |
| <b>P-40</b>                                                                                                                                                                                                                                                      | <b>Total Gross/Weapon System Cost</b> |             |                                               |                | <b>- / 35.546</b>                        | <b>- / 8.376</b>                                                                 | <b>- / 5.019</b>                         | <b>- / 6.251</b>                         | <b>- / 0.000</b>                         | <b>- / 6.251</b>                         |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</small> |                                       |             |                                               |                |                                          |                                                                                  |                                          |                                          |                                          |                                          |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                                                                                            |                                       |             |                                               |                |                                          |                                                                                  |                                          |                                          |                                          |                                          |

**Justification:**  
 Funding supports procurements and installations for the modernization of the eight operational sites across the AORs to support the surface fleet spectrum requirements. FY17 and follow on funding requirements are to maintain the upgrades conducted in FY16 and the addition of the 8th site in Guam.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                   | Date: February 2018                      |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|---------------------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10   |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>2960 / Integ Combat System Test Facility |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>ICSTF Program |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                                           |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                              |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                                | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                           | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) M8400 - SESEF Electronic Equipment                                       |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                   |                                          |            |                   |                |            |                   |
| 1.1) SESEF Electronic Equipment <sup>(1)</sup>                              | A     |                | -              | -          | 23.796            | -              | -                                                                         | 4.998             | -              | -          | 1.376             | -              | -          | 3.027             | -                                        | -          | -                 | -              | -          | 3.027             |
| Subtotal: 1) M8400 - SESEF Electronic Equipment                             |       |                | -              | -          | 23.796            | -              | -                                                                         | 4.998             | -              | -          | 1.376             | -              | -          | 3.027             | -                                        | -          | -                 | -              | -          | 3.027             |
| 2) M8500 - Interoperability Assessment Equipment                            |       |                |                |            |                   |                |                                                                           |                   |                |            |                   |                |            |                   |                                          |            |                   |                |            |                   |
| 2.1) Interoperability Assessment Equipment                                  | A     |                | -              | -          | 11.750            | -              | -                                                                         | 3.378             | -              | -          | 3.643             | -              | -          | 3.224             | -                                        | -          | -                 | -              | -          | 3.224             |
| Subtotal: 2) M8500 - Interoperability Assessment Equipment                  |       |                | -              | -          | 11.750            | -              | -                                                                         | 3.378             | -              | -          | 3.643             | -              | -          | 3.224             | -                                        | -          | -                 | -              | -          | 3.224             |
| Total                                                                       |       |                | -              | -          | 35.546            | -              | -                                                                         | 8.376             | -              | -          | 5.019             | -              | -          | 6.251             | -                                        | -          | -                 | -              | -          | 6.251             |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

**Footnotes:**

<sup>(1)</sup> The SESEF program funding increased in FY16 through the FYDP for site upgrades for procurement and installation of Ship's Signals Exploitation Equipment (SSEE) and Electronic Warfare (EW) Radar and EW Threat Simulation equipment. FY16 also funded the 8th SESEF site in Guam to meet PACFLT emergent threats. These efforts will continue over the next several years in order to continue modernization of the eight operational facilities.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                                               |                    |                      |                                                                            |                                            |                | <b>Date:</b> February 2018 |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>2970 / EMI Control Instrumentation |                                            |                |                            |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                            | <b>Other Related Program Elements:</b> N/A |                |                            |                    |               |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                                               |                    |                      |                                                                            |                                            |                |                            |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                             | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 37.137             | 3.971          | 4.188          | 4.183                                         | 0.000              | 4.183                | 4.273                                                                      | 4.374                                      | 4.444          | 4.548                      | -                  | 67.118        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 37.137             | 3.971          | 4.188          | 4.183                                         | 0.000              | 4.183                | 4.273                                                                      | 4.374                                      | 4.444          | 4.548                      | -                  | 67.118        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>37.137</b>      | <b>3.971</b>   | <b>4.188</b>   | <b>4.183</b>                                  | <b>0.000</b>       | <b>4.183</b>         | <b>4.273</b>                                                               | <b>4.374</b>                               | <b>4.444</b>   | <b>4.548</b>               | <b>-</b>           | <b>67.118</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                                               |                    |                      |                                                                            |                                            |                |                            |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| <p><b>Description:</b></p> <p>The FY 2019 funding request was reduced by \$.027 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> <p>The EMI Control Instrumentation Program is supported by OPNAV N2N6, OPNAV N95, OPNAV N96, OPNAV N97 and OPNAV N98. The EMI Control Instrumentation Program provides Cradle to Grave Systems Engineering for Mission Assurance by implementing Electromagnetic Compatibility (EMC) hardware solutions, Spectrum Management (SM) software solutions, and by procuring specialized test equipment used in the characterization/quantification of EMI problems aboard US Navy platforms. This ensures equipment, systems, and platforms meet their Operational Mission Requirements and goals within their intended operational Electromagnetic (EM) environment.</p> <p>MA004 - EMI (HARDWARE) FIXES: Procurement and installation of Electromagnetic Interference (EMI) Hardware Solutions (i.e. Fixes) will achieve Electromagnetic Compatibility (EMC) among and between shipboard electronic/electric systems and/or equipment. This will be accomplished by determining the optimal EMI fix hardware, evaluating the effectiveness of the EMI solution, then procuring and installing the required hardware with full integrated logistic support (ILS) as part of the system hardware (ECP, OA, FC, etc). The fixes may include various types of radio frequency (RF) filters, limiters, blankers, radar absorbing material (RAM) and shielding methods. MA004 - EMI (Hardware) Fixes is supported by OPNAV N95, OPNAV N96, OPNAV N97 and OPNAV N98.</p> <p>MA104 - EMI (SOFTWARE) FIXES: Procurement and installation of EMI Software Fixes for platform/strike group/Area of Operation. These specific spectrum procedures (software application capabilities) and frequency management techniques (software modules) will be used to eliminate and reduce EMI when hardware solutions are unacceptable. Funds will also be used to provide engineering support to the enhancement of spectrum software applications through the procurement of models and other capabilities, including ILS for software tools/utilities/applications that correct/mitigate operational EMI. MA104 - EMI (Software) Fixes are supported by OPNAV N95, OPNAV N96, OPNAV N97 and OPNAV N98.</p> <p>MA204 - EMI CONTROL INSTRUMENTATION: EMI Control Instrumentation will procure specialized test equipment used in the characterization and quantification of EMI problems aboard US Navy platforms. In addition, instrumentation will be procured for use in identifying the sources of EMI and determining the extent of EMI so that effective corrective measures can be applied. The instrumentation procured will include automated and special EMI test equipment (e.g., for spectrum analysis, mapping field intensities, etc.). EMI Control Instrumentation can include both hardware and software products that will enhance or streamline data collection efforts, including the ability to provide remote access capability. MA204 - EMI CONTROL INSTRUMENTATION are supported by OPNAV N2N6.</p> |                    |                |                |                                               |                    |                      |                                                                            |                                            |                |                            |                    |               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       |             |       |                                               |                                          |                                                                            |                                            | <b>Date:</b> February 2018               |                                          |                                          |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |       |                                               |                                          | <b>P-1 Line Item Number / Title:</b><br>2970 / EMI Control Instrumentation |                                            |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       |             |       | <b>Program Elements for Code B Items:</b> N/A |                                          |                                                                            | <b>Other Related Program Elements:</b> N/A |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                       |             |       |                                               |                                          |                                                                            |                                            |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       |             |       |                                               | Prior Years                              | FY 2017                                                                    | FY 2018                                    | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Title*                                | Subexhibits | ID CD | MDAP/MAIS Code                                | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                   | Quantity / Total Cost<br>(Each) / (\$ M)   | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EMI Control Instrumentation           |             |       |                                               | - / 37.137                               | - / 3.971                                                                  | - / 4.188                                  | - / 4.183                                | - / -                                    | - / 4.183                                |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Total Gross/Weapon System Cost</b> |             |       |                                               | <b>- / 37.137</b>                        | <b>- / 3.971</b>                                                           | <b>- / 4.188</b>                           | <b>- / 4.183</b>                         | <b>- / 0.000</b>                         | <b>- / 4.183</b>                         |
| <p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |       |                                               |                                          |                                                                            |                                            |                                          |                                          |                                          |
| <p><b>Justification:</b></p> <p>MA004 (EMI HDW Fixes), Increased from \$2.547 million in FY18 to \$3.267 million in FY19: OPN Funds are used to procure and install (P/I) EMI Fixes on deploying ships and submarines. The number of EMI Fixes procured (MA004 Hardware Fixes) are dependent on the number of ships/submarines in the fleet and when they deploy.</p> <p>Increases in the MA004 Budget (between FY2018 and FY2019), corresponds to the Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress (December 22, 2017) Congressional Research Service (CRS) Report; the Navy's FY2018-FY2022 five-year shipbuilding plan, as assembled from data in the Navy's FY2018 budget-justification documentation reflect the shipbuilding plans by all ship and submarine types/classes, and shows on average 8 additional platforms per year. EMI Hardware fixes vary in cost; based on complexity, and ship/submarine class/types. The increase in cost for MA004 will cover the projected increase in EMI Fix P/I requirements for the new platforms.</p> <p>MA104 (EMI SFW Fixes), Decreased from \$1.091 million in FY18 to \$0.363 million in FY19: MA104 procures and installs SFW Fixes, i.e. the Afloat Electromagnetic Spectrum Operations Program (AESOP). AESOP is transitioning to a new program called Real-Time Spectrum Operations (RTSO). RTSO is currently in development, therefore the AESOP production aspects are being de-scoped (hence MA104 reductions, starting in FY19).</p> |                                       |             |       |                                               |                                          |                                                                            |                                            |                                          |                                          |                                          |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                       |       |                |                |            |                   |                |            |                   |                                                                     |            |                   |                |            |                   | Date: February 2018                                    |            |                   |                |            |                   |
|---------------------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|-------------------|---------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|--------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                         |       |                |                |            |                   |                |            |                   | P-1 Line Item Number / Title:<br>2970 / EMI Control Instrumentation |            |                   |                |            |                   | Aggregated Items Title:<br>EMI Control Instrumentation |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                                       | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                   | FY 2018                                                             |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                            |            |                   | FY 2019 Total  |            |                   |
|                                                                                                   |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                         | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) MA004 EMI (HARDWARE) FIXES                                                                     |       |                |                |            |                   |                |            |                   |                                                                     |            |                   |                |            |                   |                                                        |            |                   |                |            |                   |
| 1.1) MA004 EMI (HARDWARE) FIXES - N96                                                             | A     |                | -              | -          | 4.931             | -              | -          | 0.787             | -                                                                   | -          | 0.830             | -              | -          | 1.067             | -                                                      | -          | -                 | -              | -          | 1.067             |
| 1.2) MA004 EMI (HARDWARE) FIXES - N95                                                             | A     |                | -              | -          | 3.426             | -              | -          | 0.547             | -                                                                   | -          | 0.574             | -              | -          | 0.734             | -                                                      | -          | -                 | -              | -          | 0.734             |
| 1.3) MA004 EMI (HARDWARE) FIXES - N97                                                             | A     |                | -              | -          | 3.556             | -              | -          | 0.566             | -                                                                   | -          | 0.596             | -              | -          | 0.760             | -                                                      | -          | -                 | -              | -          | 0.760             |
| 1.4) MA004 EMI (HARDWARE) FIXES N98                                                               | A     |                | -              | -          | 4.588             | -              | -          | 0.515             | -                                                                   | -          | 0.547             | -              | -          | 0.706             | -                                                      | -          | -                 | -              | -          | 0.706             |
| Subtotal: 1) MA004 EMI (HARDWARE) FIXES                                                           |       |                | -              | -          | 16.501            | -              | -          | 2.415             | -                                                                   | -          | 2.547             | -              | -          | 3.267             | -                                                      | -          | -                 | -              | -          | 3.267             |
| 2) MA104 EMI (SOFTWARE) FIXES                                                                     |       |                |                |            |                   |                |            |                   |                                                                     |            |                   |                |            |                   |                                                        |            |                   |                |            |                   |
| 2.1) MA104 EMI (SOFTWARE) FIXES - N95                                                             | A     |                | -              | -          | 3.856             | -              | -          | 0.234             | -                                                                   | -          | 0.246             | -              | -          | 0.081             | -                                                      | -          | -                 | -              | -          | 0.081             |
| 2.2) MA104 EMI (SOFTWARE) FIXES - N96                                                             | A     |                | -              | -          | 5.719             | -              | -          | 0.337             | -                                                                   | -          | 0.355             | -              | -          | 0.119             | -                                                      | -          | -                 | -              | -          | 0.119             |
| 2.3) MA104 EMI (SOFTWARE) FIXES - N97                                                             | A     |                | -              | -          | 4.110             | -              | -          | 0.242             | -                                                                   | -          | 0.256             | -              | -          | 0.084             | -                                                      | -          | -                 | -              | -          | 0.084             |
| 2.4) MA104 EMI (SOFTWARE) FIXES - N98                                                             | A     |                | -              | -          | 5.844             | -              | -          | 0.221             | -                                                                   | -          | 0.234             | -              | -          | 0.079             | -                                                      | -          | -                 | -              | -          | 0.079             |
| Subtotal: 2) MA104 EMI (SOFTWARE) FIXES                                                           |       |                | -              | -          | 19.529            | -              | -          | 1.034             | -                                                                   | -          | 1.091             | -              | -          | 0.363             | -                                                      | -          | -                 | -              | -          | 0.363             |
| 3) MA204 EMI CONTROL INSTRUMENTATION                                                              |       |                |                |            |                   |                |            |                   |                                                                     |            |                   |                |            |                   |                                                        |            |                   |                |            |                   |
| 3.1) MA204 EMI CONTROL INSTRUMENTATION - N2N6                                                     | A     |                | -              | -          | 1.107             | -              | -          | 0.522             | -                                                                   | -          | 0.550             | -              | -          | 0.553             | -                                                      | -          | -                 | -              | -          | 0.553             |
| Subtotal: 3) MA204 EMI CONTROL INSTRUMENTATION                                                    |       |                | -              | -          | 1.107             | -              | -          | 0.522             | -                                                                   | -          | 0.550             | -              | -          | 0.553             | -                                                      | -          | -                 | -              | -          | 0.553             |
| Total                                                                                             |       |                | -              | -          | 37.137            | -              | -          | 3.971             | -                                                                   | -          | 4.188             | -              | -          | 4.183             | -                                                      | -          | -                 | -              | -          | 4.183             |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding. |       |                |                |            |                   |                |            |                   |                                                                     |            |                   |                |            |                   |                                                        |            |                   |                |            |                   |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |                                        |              |             |               |                                                                     | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         |                                        |              |             |               | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         | Program Elements for Code B Items: N/A |              |             |               |                                                                     | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |               |                                                                     |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020                                                             | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -           | -       | -                                      | -            | -           | -             | -                                                                   | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 24,793.425  | 47.664  | 105.292                                | 148.350      | 0.000       | 148.350       | 171.540                                                             | 205.578                             | 162.820 | 155.744 | 536.969     | 26,327.382 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | -       | -                                      | -            | -           | -             | -                                                                   | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 24,793.425  | 47.664  | 105.292                                | 148.350      | 0.000       | 148.350       | 171.540                                                             | 205.578                             | 162.820 | 155.744 | 536.969     | 26,327.382 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -           | -       | -                                      | -            | -           | -             | -                                                                   | -                                   | -       | -       | -           | -          |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 24,793.425  | 47.664  | 105.292                                | 148.350      | 0.000       | 148.350       | 171.540                                                             | 205.578                             | 162.820 | 155.744 | 536.969     | 26,327.382 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |                                        |              |             |               |                                                                     |                                     |         |         |             |            |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -           | 0.598   | 0.627                                  | 0.438        | -           | 0.438         | 0.487                                                               | -                                   | -       | -       | -           | 2.150      |
| Flyaway Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -             | -                                                                   | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -           | -       | -                                      | -            | -           | -             | -                                                                   | -                                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |               |                                                                     |                                     |         |         |             |            |
| <p>[P40A / DC004 CALIBRATION STANDARDS]: These funds procure Calibration Standards equipment to execute a detailed, multi-year sustainment and modernization plan for intermediate, organizational and depot level maintenance activities. Calibration Standards equipment is employed to ensure the accuracy of test equipment used to install, align, and maintain all Navy weapons systems ashore and afloat. The Navy's inventory of Calibration Standards equipment is approaching obsolescence and requires modernization to avoid deterioration in accuracy and calibration of weapons systems. Many of the original Calibration Standards equipment is no longer in production, so replacement of the equipment must be purchased from newer model inventory, some of which have a greater unit cost. A defined, complex and multi-year modernization plan for Calibration Standards equipment is in place. The unit cost of the replacement Calibration Standards equipment to be procured, range from \$11K (general purpose power meter) to \$350K (vector network analyzer); whereas the unit cost of older standards procured in prior years ranged from \$18K to \$52K. This change in unit cost is attributable to the diversity and varying complexity of Calibration Standards equipment to be procured and their measurement requirements. Increased funding in FY19 is in response to aging, obsolete Calibration Standards equipment within Depot, Intermediate and Organizational maintenance support activities. NAVSEA has calibration equipment in excess of 25 years of typical "Life-Expectancy". Original Equipment Manufacturers (OEM) do not support a majority of the current legacy equipment in inventory. This in return has impacted calibration facilities to support certain fleet workload and often overflowing to other organic labs that have limited support or pushing to outside OEM/Industry support which has driven support costs up, in return impacting Ship/Sub availabilities. Currently there is a 30% obsolescence challenge that severely impacts weapon system readiness ultimately degrading warfighting capability and deploy-ability. Funding in FY19 and beyond has therefore been increased to stabilize the infrastructure in an effort to maintain a healthy support posture.</p> |             |         |                                        |              |             |               |                                                                     |                                     |         |         |             |            |
| <p>[P40A / DC019 RADAR RESTORATION AN/SPS-67 ANTENNA]: Funding in this line establishes an antenna manufacturing capability at Naval Surface Warfare Center (NSWC) Crane needed to provide additional rotatable pool antennas and associated engineering changes for the AN/SPS-67(V)3 to support the restoration of installed fleet antennas. The current number of available antennas is insufficient to support the fleet population. This has led to antennas operating in the field beyond their periodicity, resulting in decreased detection and tracking capability.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |                                        |              |             |               |                                                                     |                                     |         |         |             |            |
| <p>[P40A / DC020 DUAL BAND RADAR (DBR)]: Funding is required to establish the In-Service Engineering Agent (ISEA), Original Equipment Manufacturer (OEM) production services and support for Configuration Management. Funding also implements the DBR Life Cycle Sustainment Plan (LCSP) and infrastructure, Diminishing Manufacturing Sources and Material Shortages (DMSMS) Plan, associated hardware and software obsolescence mod kits, procurement of Engineering Change Proposals (ECPs), associated logistics products and on-board allowance requirements to enable system operation. Production Support is also required to assist with DBR Combat System Integration and Technical Documentation. Additional limitations will be identified during CVN78/DDG1000 Shipboard Activation, Integration and At-Sea Testing. Additionally, as a result of DBR land based testing at the Wallops Island Engineering Test Center (WIETC) limitations were identified in the Dual Band Radar (DBR) performance that directly impacted CVN 78 and DDG 1000 class readiness. These limitations require ECPs to correct the performance areas of the radar for Air Traffic Control and Integrated Combat Systems (e.g., False Clutter Tracks, Short Range Tracking, General Tracking, Slow Air Tracking, Waveform Scheduling, and code stability). The Prime Contractor and Government Technical Team have documented critical radar issues that require correction via ECPs in FY17-FY23. Funding for these ECP efforts increases starting in FY18 due to the engineering and technical complexity of the change proposals needed to satisfy combat system qualification</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |               |                                                                     |                                     |         |         |             |            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                               | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                 |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| <p>requirements. DBR was reviewed by an Independent Review Team (IRT) chartered by the Under Secretary of Defense (Acquisition, Technology and Logistics) to assess specific CVN 78 systems. The IRT recommended that the Navy establish infrastructure and mechanisms to accelerate the acquisition of spares for DBR and develop a repair capability for DBR parts from the Fleet. DBR Special Test Equipment and Infrastructure funding from FY19 - FY23 provides for (1) test equipment and support for a repair depot for assemblies and subassemblies for DBR components, including Common Array Power System (CAPS), and Common Array Cooling System (CACS); (2) resolution of system obsolescence that will degrade system Ao; and, (3) establishment of product support engineering infrastructure. FY19 procures critical equipment needed to build DBR unique Receiver Exciter (REX) test equipment for acceptance testing of spare REX modules required to sustain DBR systems on CVN 78 and the DDG 1000 Class ships. The DBR program support infrastructure will be improved in FY19 through the development of resolution strategies for outstanding obsolescence issues. The additional DBR sustainment and infrastructure efforts will facilitate the transition of material sparing support of DBR to NAVSUP.</p> <p>[P40A / DC021 AN/SPS-67(V)5 MARITIME RADAR PROCESSOR (MRP)]: The Maritime Radar Processor (MRP) was developed to improve the detection of small boats/targets by USN ships. Funding in this line will be used to integrate and field small boat detection software improvements to AN/SPS-67(V)5 Surface Search Radar.</p> <p>[P40A / DC022 RADAR RESTORATION MATERIAL]: DC022 - Radar Restoration funding in this line procures components to support radar restoration (AN/SPS-48 Arrays and miscellaneous Antenna Sub-Assemblies) and Engineering Change Proposals (ECPs) to address obsolescence and improve supportability.</p> <p>[P3A / DC001 - SPS-73 RADAR]: The AN/SPS-73(V) Radar provides navigation and general surface search radar functionality on all U.S. Navy ships. The AN/SPS-73(V)12 is the Program of Record (POR) Automatic Radar Plotting Aid (ARPA) Navigation Radar for the U.S. Navy. Funding will be utilized for engineering changes which will improve surface combatant's ability to engage fast attack craft/fast in shore attack craft (FAC/FIAC) tracking and periscope detection and discrimination, as well as address cybersecurity shortfalls and Commercial-Off-The-Shelf (COTS) obsolescence of the legacy AN/SPS-73 systems. The AN/SPS-73 Next Generation Surface Search Radar (NGSSR) will update the current AN/SPS-73(V)12 and replace the AN/SPS-67(V) and all commercially provided Navigation Radars fielded in the fleet. NGSSR non-recurring engineering (NRE) is required in FY17-FY20 due to the program direction to mitigate FAC/FIAC and cybersecurity shortfalls, and to capitalize on periscope detection and discrimination capabilities. The FY19 funding increase will complete software development; procure and test NGSSR qualification units; and finalize NGSSR hardware configuration. This will also accelerate initial procurement of NGSSR production units as recommended by the CNO as a result of the October 2017 Commander Fleet Forces Comprehensive Review which was directly related to the McCain and Fitzgerald collisions.</p> <p>[P3A - 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)]: The AN/SPS-48G 3-D Air Surveillance Radar is a follow-on to the existing AN/SPS-48E onboard Aircraft Carriers and large-deck Amphibious ships. AN/SPS-48G was initiated in response to Fleet complaints regarding AN/SPS-48E reliability and supportability. Upgrade of the AN/SPS-48E with the AN/SPS-48G remains a high Fleet priority as it will reduce Operation and Support (O&amp;S) costs and improve Operational Availability. Both factors are cited by the Fleet as unsatisfactory for the AN/SPS-48E. The goal is to replace the AN/SPS-48E as rapidly as possible so the Fleet can realize this cost avoidance. Current efforts include the manufacturing of the AN/SPS-48G upgrade kits with associated production support as well as modifications to the AN/SPS-48G brought about by initial Fleet introduction and Fleet operations. Production lead time is 24 months for the initial unit with subsequent units delivered at two month intervals after initial delivery. Equipment delivery for installation is required thirty days prior to FMP availability start in accordance with Navy Modernization Process Management. Engineering Change Order funding is required to address Fleet recommended modifications/requirements and Information Assurance, Obsolescence, and Diminishing Manufacturing Sources (DMS) issues. Engineering Change Proposal funding is required to initiate incorporation of High Diver Detection and Tracking functionality. This capability was designed and incorporated into the AN/SPS-48E after design of the AN/SPS-48G had been initiated. This change needs to be translated into the different hardware and software architectures of the AN/SPS-48G. FY18 is the last year of AN/SPS-48G procurements.</p> <p>[P3A - 3 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)]: Provides real-time valunumeric wind profiles, convective weather detection/display, and radar refractivity assessments from AN/SPY-1 radar returns. TEP will be an adjunct processor and display, tapping radar data from weather and refractivity data, with users able to access information through Secret Internet Protocol Router (SIPR). Commercial Off The Shelf (COTS) refresh funding in FY18-FY23 is to address cyber security requirements.</p> <p>[P3A - 4 / DC018 - AN/SPY-1 RM&amp;A IMPROVEMENTS]: DC018 AN/SPY-1 RM&amp;A IMPROVEMENTS - These Reliability, Maintainability, and Availability (RM&amp;A) improvements are intended to reduce cascading failures, mitigate obsolescence issues, and improve reliability in support of Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD) missions while still providing AN/SPY-1 Radar Total Ownership Cost (TOC) reductions. The improvements include, but are not limited to, installation for Sidewall Capacitor Circuit Protection and 10kW Traveling Wave Tube (TWT) Monitoring Circuits Ordnance Alterations (ORDALTS) for AN/SPY-1; B (V), D, D (V), CG and DDGs. Solid State Switch Assemblies (SSSA) will replace legacy switch tube modulator deck via an ORDALT. Multi-Mission Signal Processor (MMSP) is the signal processor for the AN/SPY-1 radar. MMSP Refresh (MMSP-R) cabinets will be procured to provide production representative configurations for land-based testing and training to support AEGIS ships at AEGIS Training and</p> |                                               |                                                                            |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                    |                                               | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 10: Other Shore Electronic Equipment                                                                                                                                                                            |                                               | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                             | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                 |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><br>Readiness Center (ATRC) and Surface Combat System Center (SCSC) Wallops Island. Increased funding in FY18 includes the procurement of two MMSP-R cabinets for Virginia sites, procurement of assets and shock qualification testing of SSSA and SPY-1D(V) Final Power Amplifier (FPA) cabinet required by MILSPEC 901-D. |                                               |                                                                            |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------|-----------------------------------------------|-----------------------|----------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                      |                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment                                                                                                                                                                 |                                                                                  |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                               |                                                                                  |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                                 |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                   |                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                               |                                                                                  |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                             | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                    | <b>Title*</b>                                                                    | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                               | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                  | Items less than \$5 Million                                                      | P-5a               |                                               |                       | - / 24,416.625                               | - / 14.556                                                                 | - / 24.698                                   | - / 52.613                                   | - / -                                        | - / 52.613                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 1 / DC001 - SPS-73 RADAR (TBD)                                                   |                    |                                               |                       | - / 55.499                                   | - / 3.669                                                                  | - / 4.027                                    | - / 58.414                                   | - / 0.000                                    | - / 58.414                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) (TBD) |                    |                                               |                       | - / 280.571                                  | - / 9.544                                                                  | - / 39.017                                   | - / 5.648                                    | - / 0.000                                    | - / 5.648                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 3 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) (TBD)                         |                    |                                               |                       | - / 6.102                                    | - / 1.193                                                                  | - / 1.299                                    | - / 1.342                                    | - / 0.000                                    | - / 1.342                                    |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS (TBD)                                     |                    |                                               |                       | - / 34.628                                   | - / 18.702                                                                 | - / 36.251                                   | - / 30.333                                   | - / 0.000                                    | - / 30.333                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                            | <b>Total Gross/Weapon System Cost</b>                                            |                    |                                               |                       | <b>- / 24,793.425</b>                        | <b>- / 47.664</b>                                                          | <b>- / 105.292</b>                           | <b>- / 148.350</b>                           | <b>- / 0.000</b>                             | <b>- / 148.350</b>                           |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                               |                                                                                  |                    |                                               |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                             | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                    | <b>Title*</b>                                                                    | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                               | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                  | Items less than \$5 Million                                                      | P-5a               |                                               |                       | - / -                                        | - / -                                                                      | - / -                                        | - / -                                        | - / -                                        | - / -                                        |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 1 / DC001 - SPS-73 RADAR (TBD)                                                   |                    |                                               |                       | - / 102.056                                  | - / 101.653                                                                | - / 102.526                                  | - / 103.163                                  | - / 67.366                                   | - / 598.373                                  |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) (TBD) |                    |                                               |                       | - / 8.772                                    | - / 5.545                                                                  | - / 1.540                                    | - / 0.000                                    | - / 2.750                                    | - / 353.387                                  |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 3 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) (TBD)                         |                    |                                               |                       | - / 1.275                                    | - / 1.349                                                                  | - / 1.510                                    | - / 1.489                                    | - / 11.111                                   | - / 26.670                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                   | 4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS (TBD)                                     |                    |                                               |                       | - / 23.657                                   | - / 25.293                                                                 | - / 15.250                                   | - / 15.501                                   | - / 373.398                                  | - / 573.013                                  |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                            | <b>Total Gross/Weapon System Cost</b>                                            |                    |                                               |                       | <b>- / 171.540</b>                           | <b>- / 205.578</b>                                                         | <b>- / 162.820</b>                           | <b>- / 155.744</b>                           | <b>- / 536.969</b>                           | <b>- / 26,327.382</b>                        |
| <p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p> |                                                                                  |                    |                                               |                       |                                              |                                                                            |                                              |                                              |                                              |                                              |

**Justification:**

The FY 2019 funding request was reduced by \$0.594 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                | Date: February 2018                                    |                   |                |            |                   |       |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|---------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|----------------|--------------------------------------------------------|-------------------|----------------|------------|-------------------|-------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10   |       |                |                |            |                   | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |            |                   |                |            |                   |                |            |                   |                | Aggregated Items Title:<br>Items less than \$5 Million |                   |                |            |                   |       |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                             |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO    |                                                        |                   | FY 2019 Total  |            |                   |       |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                             | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |       |
| 1) DC001 SPS-73 RADAR                                                       |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |
| 1.1) TECH REFRESH                                                           |       | A              |                | 209,565.89 | 129               | 27.034                                                              | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| Subtotal: 1) DC001 SPS-73 RADAR                                             |       |                | -              | -          | 27.034            | -                                                                   | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| 2) DC004 CALIBRATION STANDARDS                                              |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |
| 2.1) CALIBRATION STANDARDS <sup>(1)(f)</sup>                                |       | A              |                | 32,829K    | 742               | 24,359.000                                                          | 23,891.00  | 64                | 1.529          | 24,291.01  | 189               | 4.591          | 24,133.82  | 411               | 9.919          | -                                                      | -                 | -              | 24,133.82  | 411               | 9.919 |
| Subtotal: 2) DC004 CALIBRATION STANDARDS                                    |       |                | -              | -          | 24,359.000        | -                                                                   | -          | 1.529             | -              | -          | 4.591             | -              | -          | 9.919             | -              | -                                                      | -                 | -              | -          | 9.919             |       |
| 3) DC019 RADAR RESTORATION AN/SPS-67 ANTENNA                                |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |
| 3.1) HARDWARE <sup>(f)</sup>                                                |       | A              |                | 493,000.00 | 5                 | 2.465                                                               | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| 3.2) OTHER                                                                  |       | A              |                | -          | -                 | 1.716                                                               | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| Subtotal: 3) DC019 RADAR RESTORATION AN/SPS-67 ANTENNA                      |       |                | -              | -          | 4.181             | -                                                                   | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| 4) DC020 DUAL BAND RADAR (DBR)                                              |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |
| 4.1) DBR PRODUCTION SUPPORT                                                 |       | A              |                | -          | -                 | 3.842                                                               | -          | -                 | 3.054          | -          | -                 | 2.843          | -          | -                 | 2.816          | -                                                      | -                 | -              | -          | 2.816             |       |
| 4.2) DBR ENGINEERING CHANGE PROPOSALS (ECPS)                                |       | A              |                | -          | -                 | 11.430                                                              | -          | -                 | 9.321          | -          | -                 | 12.368         | -          | -                 | 13.398         | -                                                      | -                 | -              | -          | 13.398            |       |
| 4.3) DBR SPECIAL TEST EQUIPMENT AND INFRASTRUCTURE <sup>(2)</sup>           |       | A              |                | -          | -                 | -                                                                   | -          | -                 | -              | -          | -                 | -              | -          | -                 | 21.613         | -                                                      | -                 | -              | -          | 21.613            |       |
| Subtotal: 4) DC020 DUAL BAND RADAR (DBR)                                    |       |                | -              | -          | 15.272            | -                                                                   | -          | 12.375            | -              | -          | 15.211            | -              | -          | 37.827            | -              | -                                                      | -                 | -              | -          | 37.827            |       |
| 5) DC021 AN/SPS-67(V)5 MARITIME RADAR PROCESSOR (MRP)                       |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |
| 5.1) AN/SPS-67(V)5 MARITIME RADAR PROCESSOR                                 |       | A              |                | -          | -                 | 2.922                                                               | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| Subtotal: 5) DC021 AN/SPS-67(V)5 MARITIME RADAR PROCESSOR (MRP)             |       |                | -              | -          | 2.922             | -                                                                   | -          | -                 | -              | -          | -                 | -              | -          | -                 | -              | -                                                      | -                 | -              | -          | -                 |       |
| 6) DC012 AN/SPS-74(V) PERISCOPE DETECTION RADAR                             |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |
| 6.1) PRODUCTION SUPPORT                                                     |       | A              |                | -          | -                 | 2.346                                                               | -          | -                 | 0.652          | -          | -                 | 0.696          | -          | -                 | 0.674          | -                                                      | -                 | -              | -          | 0.674             |       |
| Subtotal: 6) DC012 AN/SPS-74(V) PERISCOPE DETECTION RADAR                   |       |                | -              | -          | 2.346             | -                                                                   | -          | 0.652             | -              | -          | 0.696             | -              | -          | 0.674             | -              | -                                                      | -                 | -              | -          | 0.674             |       |
| 7) RED FALCON (OCO)                                                         |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                |                                                        |                   |                |            |                   |       |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   | Date: February 2018                                    |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|---------------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|--------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10   |       |                |                |            |                   | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |            |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>Items less than \$5 Million |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                             |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                            |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                      | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                         | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 7.1) RED FALCON (OCO)                                                       | A     |                | -              | -          | 5.870             | -                                                                   | -          | -                 | -              | -          | -                 | -              | -          | -                 | -                                                      | -          | -                 | -              | -          | -                 |
| Subtotal: 7) RED FALCON (OCO)                                               |       |                | -              | -          | 5.870             | -                                                                   | -          | -                 | -              | -          | -                 | -              | -          | -                 | -                                                      | -          | -                 | -              | -          | -                 |
| 8) DC022 RADAR RESTORATION MATERIAL <sup>(3)</sup>                          |       |                |                |            |                   |                                                                     |            |                   |                |            |                   |                |            |                   |                                                        |            |                   |                |            |                   |
| 8.1) 48 ARRAYS <sup>(†)</sup>                                               | A     |                | -              | -          | -                 | -                                                                   | -          | -                 | 9,827.78       | 360        | 3.538             | 10,011.11      | 360        | 3.604             | -                                                      | -          | -                 | 10,011.11      | 360        | 3.604             |
| 8.2) ANTENNA SUB-ASSEMBLIES                                                 | A     |                | -              | -          | -                 | -                                                                   | -          | -                 | -              | -          | 0.242             | -              | -          | 0.246             | -                                                      | -          | -                 | -              | -          | 0.246             |
| 8.3) ENGINEERING CHANGE PROPOSALS (ECPS)                                    | A     |                | -              | -          | -                 | -                                                                   | -          | -                 | -              | -          | 0.420             | -              | -          | 0.343             | -                                                      | -          | -                 | -              | -          | 0.343             |
| Subtotal: 8) DC022 RADAR RESTORATION MATERIAL                               |       |                | -              | -          | 0.000             | -                                                                   | -          | -                 | -              | -          | 4.200             | -              | -          | 4.193             | -                                                      | -          | -                 | -              | -          | 4.193             |
| Total                                                                       |       |                | -              | -          | 24,416.625        | -                                                                   | -          | 14.556            | -              | -          | 24.698            | -              | -          | 52.613            | -                                                      | -          | -                 | -              | -          | 52.613            |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

**Footnotes:**

- (1) DC004 - Calibration Standards equipment unit costs and quantities varies due to the diversity and varying complexity of Calibration Standards equipment being procured from year to year; the requested funding addresses calibration and maintenance operational requirements across shipboard/shore-based activities and programs.
- (2) DBR Special Test Equipment and Infrastructure funding from FY19 - FY23 provides for (1) test equipment and support for a repair depot for assemblies and subassemblies for DBR components, including Common Array Power System (CAPS), and Common Array Cooling System (CACS); (2) resolution of system obsolescence issues that will prevent a degradation of system Ao; and, (3) establishment of product support engineering infrastructure. FY19 procures critical equipment needed to build DBR unique Receiver Exciter (REX) test equipment for acceptance testing of spare REX modules required to sustain DBR systems on CVN 78 and the DDG 1000 Class ships. The DBR program support infrastructure will be improved in FY19 through the development of resolution strategies for outstanding obsolescence issues. The additional DBR sustainment and infrastructure efforts will facilitate the transition of material sparing support of DBR to NAVSUP.
- (3) DC022 - Radar Restoration funding in this line procures components to support radar restoration (AN/SPS-48 Arrays and miscellaneous Antenna Sub-Assemblies) and Engineering Change Proposals (ECPs) to address obsolescence and improve supportability.

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |                      |           |                                |                                                                            |                        |                       |                                       |                       | <b>Date:</b> February 2018                              |                                 |                                        |                           |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                      |           |                                | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                        |                       |                                       |                       | <b>Aggregated Items:</b><br>Items less than \$5 Million |                                 |                                        |                           |
| <b>Item Number / Title [DODIC]</b>                                               | <b>O<br/>C<br/>O</b> | <b>FY</b> | <b>Contractor and Location</b> | <b>Method/Type<br/>or<br/>Funding Vehicle</b>                              | <b>Location of PCO</b> | <b>Award<br/>Date</b> | <b>Date<br/>of First<br/>Delivery</b> | <b>Qty<br/>(Each)</b> | <b>Unit Cost<br/>(\$)</b>                               | <b>Specs<br/>Avail<br/>Now?</b> | <b>Date<br/>Revision<br/>Available</b> | <b>RFP Issue<br/>Date</b> |
| <b>2) DC004 CALIBRATION STANDARDS</b>                                            |                      |           |                                |                                                                            |                        |                       |                                       |                       |                                                         |                                 |                                        |                           |
| 2.1) CALIBRATION STANDARDS<br>(1)                                                |                      | 2017      | NSWC/CHINA LAKE / CHINA LAKE   | WR                                                                         | CHINA LAKE             | Feb 2017              | Jun 2017                              | 64                    | 23,891.00                                               | Y                               |                                        |                           |
| 2.1) CALIBRATION STANDARDS<br>(1)                                                |                      | 2018      | NSWC/CHINA LAKE / CHINA LAKE   | WR                                                                         | CHINA LAKE             | Nov 2017              | Mar 2018                              | 189                   | 24,291.01                                               | Y                               |                                        |                           |
| 2.1) CALIBRATION STANDARDS<br>(1)                                                |                      | 2019      | NSWC/CHINA LAKE / CHINA LAKE   | WR                                                                         | CHINA LAKE             | Nov 2018              | Mar 2019                              | 411                   | 24,133.82                                               | N                               |                                        |                           |
| <b>3) DC019 RADAR RESTORATION AN/SPS-67 ANTENNA</b>                              |                      |           |                                |                                                                            |                        |                       |                                       |                       |                                                         |                                 |                                        |                           |
| 3.1) HARDWARE                                                                    |                      | 2016      | NSWC CRANE / CRANE, IN         | WR                                                                         | NSWC CRANE             | Apr 2016              | Apr 2018                              | 1                     | 492,000.00                                              | Y                               |                                        |                           |
| <b>8) DC022 RADAR RESTORATION MATERIAL</b>                                       |                      |           |                                |                                                                            |                        |                       |                                       |                       |                                                         |                                 |                                        |                           |
| 8.1) 48 ARRAYS                                                                   |                      | 2018      | NSWC CRANE / CRANE, IN         | Various                                                                    | NSWC CRANE             | Oct 2017              | Oct 2018                              | 360                   | 9,827.78                                                | Y                               |                                        |                           |
| 8.1) 48 ARRAYS                                                                   |                      | 2019      | NSWC CRANE / CRANE, IN         | Various                                                                    | NSWC CRANE             | Oct 2018              | Oct 2019                              | 360                   | 10,011.11                                               | Y                               |                                        |                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                            |  | <b>Date:</b> February 2018 |  |                                                                 |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |  |                            |  | <b>Modification Number / Title:</b><br>1 / DC001 - SPS-73 RADAR |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 55.499      | 3.669   | 4.027   | 58.414       | 0.000       | 58.414          | 102.056 | 101.653 | 102.526 | 103.163 | 67.366      | 598.373 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 55.499      | 3.669   | 4.027   | 58.414       | 0.000       | 58.414          | 102.056 | 101.653 | 102.526 | 103.163 | 67.366      | 598.373 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                            | 55.499      | 3.669   | 4.027   | 58.414       | 0.000       | 58.414          | 102.056 | 101.653 | 102.526 | 103.163 | 67.366      | 598.373 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

The AN/SPS-73(V) Radar provides navigation and general surface search radar functionality on all U.S. Navy ships. The AN/SPS-73(V)12 is the Program of Record (POR) Automatic Radar Plotting Aid (ARPA) Navigation Radar for the U.S. Navy. Funding will be utilized for engineering changes which will improve surface combatant's ability to engage fast attack craft/fast in shore attack craft (FAC/FIAC) tracking and periscope detection and discrimination, as well as address cybersecurity shortfalls and Commercial-Off-The-Shelf (COTS) obsolescence of the legacy AN/SPS-73 systems. The AN/SPS-73 Next Generation Surface Search Radar (NGSSR) will update the current AN/SPS-73(V)12 and replace the AN/SPS-67(V) and all commercially provided Navigation Radars fielded in the fleet. NGSSR non-recurring engineering (NRE) is required in FY17-FY20 due to the program direction to mitigate FAC/FIAC and cybersecurity shortfalls, and to capitalize on periscope detection and discrimination capabilities. The FY19 funding increase will complete software development; procure and test NGSSR qualification units; and finalize NGSSR hardware configuration. This will also accelerate initial procurement of NGSSR production units as recommended by the CNO as a result of the October 2017 Commander Fleet Forces Comprehensive Review which was directly related to the McCain and Fitzgerald collisions.

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|---------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                     |                                |                                |                                | Date: February 2018                                      |                                |                                |                                |                                |               |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10 |                                |                                |                                | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |                                |                                |                                | Modification Number / Title:<br>1 / DC001 - SPS-73 RADAR |                                |                                |                                |                                |               |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                     |                                |                                | MDAP/MAIS Code:                |                                                          |                                |                                |                                |                                |               |
| Models of Systems Affected: AN/SPS-73                                     |                                |                                |                                | Modification Type: TBD                                              |                                |                                |                                | Related RDT&E PEs:                                       |                                |                                |                                |                                |               |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                        | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                  | FY 2022                        | FY 2023                        | To Complete                    | Total                          |               |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |               |
| Procurement                                                               |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| Modification Item 1 of 1: DC001 - SPS-73 RADAR                            |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| B Kits                                                                    |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| Recurring                                                                 |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| 1.1.1) SPS-73 SYSTEMS - NonOrganic                                        |                                | 79 / 18.452                    | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                    | - / -                          | - / -                          | - / -                          | 79 / 18.452                    |               |
| 1.1.2) NEXT GENERATION NON RECURRING ENGINEERING - Organic <sup>(4)</sup> |                                | - / 5.632                      | - / 1.701                      | - / 2.877                                                           | - / 9.419                      | - / -                          | - / 9.419                      | - / 2.351                                                | - / -                          | - / -                          | - / -                          | - / 21.980                     |               |
| 1.1.3) NEXT GENERATION SURFACE SEARCH RADAR - NonOrganic <sup>(5)</sup>   |                                | - / -                          | - / -                          | - / -                                                               | 40 / 34.200                    | - / -                          | 40 / 34.200                    | 40 / 35.226                                              | 40 / 36.283                    | 40 / 37.371                    | 40 / 38.492                    | - / -                          | 200 / 181.572 |
| 1.1.4) NEXT GENERATION SURFACE SEARCH RADAR SHORE SITES - NonOrganic      |                                | - / -                          | - / -                          | - / -                                                               | 3 / 3.241                      | - / -                          | 3 / 3.241                      | - / -                                                    | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 3.241     |
| Subtotal: Recurring                                                       |                                | - / 24.084                     | - / 1.701                      | - / 2.877                                                           | - / 46.860                     | - / -                          | - / 46.860                     | - / 37.577                                               | - / 36.283                     | - / 37.371                     | - / 38.492                     | - / 0.000                      | - / 225.245   |
| Subtotal: DC001 - SPS-73 RADAR                                            |                                | 79 / 24.084                    | - / 1.701                      | - / 2.877                                                           | 43 / 46.860                    | - / -                          | 43 / 46.860                    | 40 / 37.577                                              | 40 / 36.283                    | 40 / 37.371                    | 40 / 38.492                    | - / -                          | 282 / 225.245 |
| Subtotal: Procurement, All Modification Items                             |                                | - / 24.084                     | - / 1.701                      | - / 2.877                                                           | - / 46.860                     | - / -                          | - / 46.860                     | - / 37.577                                               | - / 36.283                     | - / 37.371                     | - / 38.492                     | - / 0.000                      | - / 225.245   |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| 2.1) PRODUCTION SUPPORT <sup>(6)</sup>                                    |                                | - / -                          | - / -                          | - / -                                                               | - / 3.202                      | - / -                          | - / 3.202                      | - / 3.319                                                | - / 3.397                      | - / 3.499                      | - / 3.604                      | - / 1.026                      | - / 18.047    |
| 2.2) MISCELLANEOUS ECP SUPPORT <sup>(7)</sup>                             |                                | - / 2.233                      | - / 1.315                      | - / 1.150                                                           | - / 2.110                      | - / -                          | - / 2.110                      | - / 6.475                                                | - / 7.078                      | - / 6.024                      | - / 5.957                      | - / 11.894                     | - / 44.236    |
| Subtotal: Support                                                         |                                | - / 2.233                      | - / 1.315                      | - / 1.150                                                           | - / 5.312                      | - / -                          | - / 5.312                      | - / 9.794                                                | - / 10.475                     | - / 9.523                      | - / 9.561                      | - / 12.920                     | - / 62.283    |
| Installation                                                              |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| Modification Item 1 of 1: DC001 - SPS-73 RADAR                            |                                | - / 29.182                     | - / 0.653                      | - / 0.000                                                           | - / 6.242                      | - / 0.000                      | - / 6.242                      | - / 54.685                                               | - / 54.895                     | - / 55.632                     | - / 55.110                     | - / 54.446                     | - / 310.845   |
| Subtotal: Installation                                                    |                                | - / 29.182                     | - / 0.653                      | - / -                                                               | - / 6.242                      | - / -                          | - / 6.242                      | - / 54.685                                               | - / 54.895                     | - / 55.632                     | - / 55.110                     | - / 54.446                     | - / 310.845   |
| Total                                                                     |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |
| Total Cost (Procurement + Support + Installation)                         |                                | 55.499                         | 3.669                          | 4.027                                                               | 58.414                         | 0.000                          | 58.414                         | 102.056                                                  | 101.653                        | 102.526                        | 103.163                        | 67.366                         | 598.373       |
|                                                                           |                                |                                |                                |                                                                     |                                |                                |                                |                                                          |                                |                                |                                |                                |               |

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|-------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|----------------------------------------------------------------------------|--------------------------------|-----------|-------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                  |            |                                |           |                                |           |                                |           |                                |           |                                | <b>Date:</b> February 2018                                                 |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                            |            |                                |           |                                |           |                                |           |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                |           |                                     |           |                                |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / DC001 - SPS-73 RADAR |           |                                |           |                |           |           |           |           |            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                     |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           | <b>MDAP/MAIS Code:</b>         |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Modification Item 1 of 1:</b> DC001 - SPS-73 RADAR                                                       |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Manufacturer Information</b>                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| Manufacturer Name: AN/SPS-73 Next Generation Navigation Radar - TBD                                         |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           | Manufacturer Location: TBD          |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| Administrative Leadtime (in Months): 0                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           | Production Leadtime (in Months): 12 |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Dates</b>                                                                                                |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                 |                                                                            |                                |           | <b>FY 2020</b>                      |           |                                |           | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                                                  |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |  |
| Contract Dates                                                                                              |            |                                |           |                                |           | Mar 2019                       |           |                                |           | Mar 2020                       |                                                                            |                                |           | Mar 2021                            |           |                                |           | Mar 2022                       |           |                                |           | Mar 2023                                                        |           |                                |           |                |           |           |           |           |            |  |
| Delivery Dates                                                                                              |            |                                |           |                                |           | Mar 2020                       |           |                                |           | Mar 2021                       |                                                                            |                                |           | Mar 2022                            |           |                                |           | Mar 2023                       |           |                                |           | Mar 2024                                                        |           |                                |           |                |           |           |           |           |            |  |
| <b>Installation Information</b>                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SPS-73 SYSTEMS                       |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Installation Cost</b>                                                                                    |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                            | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                      |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                 |           | <b>To Complete</b>                                              |           | <b>Total</b>                   |           |                |           |           |           |           |            |  |
|                                                                                                             |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                  |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |  |
| Prior Years                                                                                                 |            | 78 / 29.182                    |           | 1 / 0.653                      |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                       |           | 79 / 29.835                    |           |                |           |           |           |           |            |  |
| FY 2017                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2018                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2019                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2020                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2021                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2022                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| FY 2023                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| To Complete                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |
| Total                                                                                                       |            | 78 / 29.182                    |           | 1 / 0.653                      |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | 0 / 0.000                                                       |           | 79 / 29.835                    |           |                |           |           |           |           |            |  |
| <b>Installation Schedule</b>                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
|                                                                                                             | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                 |                                                                            |                                |           | <b>FY 2020</b>                      |           |                                |           | <b>FY 2021</b>                 |           |                                |           | <b>FY 2022</b>                                                  |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |  |
|                                                                                                             |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                                                  | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                           | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                       | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |  |
| In                                                                                                          | 78         | -                              | 1         | -                              | -         | -                              | -         | -                              | -         | -                              | -                                                                          | -                              | -         | -                                   | -         | -                              | -         | -                              | -         | -                              | -         | -                                                               | -         | -                              | -         | -              | -         | -         | -         | -         | 79         |  |
| Out                                                                                                         | 78         | -                              | -         | 1                              | -         | -                              | -         | -                              | -         | -                              | -                                                                          | -                              | -         | -                                   | -         | -                              | -         | -                              | -         | -                              | -         | -                                                               | -         | -                              | -         | -              | -         | -         | -         | -         | 79         |  |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: NEXT GENERATION SURFACE SEARCH RADAR |            |                                |           |                                |           |                                |           |                                |           |                                |                                                                            |                                |           |                                     |           |                                |           |                                |           |                                |           |                                                                 |           |                                |           |                |           |           |           |           |            |  |
| <b>Installation Cost</b>                                                                                    |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                            | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                      |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                 |           | <b>To Complete</b>                                              |           | <b>Total</b>                   |           |                |           |           |           |           |            |  |
|                                                                                                             |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                  |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |  |
| Prior Years                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |                                                                            | - / -                          |           | - / -                               |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                           |           | - / -                          |           |                |           |           |           |           |            |  |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                      |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>1 / DC001 - SPS-73 RADAR |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** DC001 - SPS-73 RADAR

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: NEXT GENERATION SURFACE SEARCH RADAR

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | 0 / 5.402                      | 0 / 0.000                      | 0 / 5.402                      | 40 / 47.504                    | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 40 / 52.906                    |
| FY 2020           | - / -                          | - / -                          | - / -                          | 0 / 0.840                      | 0 / 0.000                      | 0 / 0.840                      | 0 / 6.057                      | 40 / 48.410                    | - / -                          | - / -                          | 0 / 0.000                      | 40 / 55.307                    |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.630                      | 0 / 5.505                      | 40 / 51.179                    | - / -                          | 0 / 0.000                      | 40 / 57.314                    |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.980                      | 0 / 4.173                      | 40 / 48.452                    | 0 / 0.000                      | 40 / 53.605                    |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.280                      | 0 / 6.658                      | 40 / 54.446                    | 40 / 61.384                    |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | - / -                          | 0 / 6.242                      | 0 / 0.000                      | 0 / 6.242                      | 40 / 54.191                    | 40 / 54.895                    | 40 / 55.632                    | 40 / 55.110                    | 40 / 54.446                    | 200 / 280.516                  |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 5  | 15 | 20 | -       | 5  | 15 | 20 | -       | 5  | 15 | 20 | -       | 5  | 15 | 20 | 40 | 200 |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 5  | 15 | 20 | -       | 5  | 15 | 20 | -       | 5  | 15 | 20 | -       | 5  | 15 | 20 | 40 | 200 |

**Method of Implementation:** [none specified]:: Installation Name: NEXT GENERATION SURFACE SEARCH RADAR SHORE SITES

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 0.494                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.494                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 0.494                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.494                      |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                              |                                                                            | <b>Date:</b> February 2018                                      |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                        | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>1 / DC001 - SPS-73 RADAR |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                 |                                                                            | <b>MDAP/MAIS Code:</b>                                          |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Modification Item 1 of 1:</b> DC001 - SPS-73 RADAR                                                                   |                                                                            |                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Information</b>                                                                                         |                                                                            |                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: NEXT GENERATION SURFACE SEARCH RADAR SHORE SITES |                                                                            |                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
| <b>Installation Schedule</b>                                                                                            |                                                                            |                                                                 |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |         |    |    |    |    |     |
|                                                                                                                         | PYS                                                                        | FY 2017                                                         |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|                                                                                                                         |                                                                            | Q1                                                              | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In                                                                                                                      | -                                                                          | -                                                               | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 3  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |
| Out                                                                                                                     | -                                                                          | -                                                               | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 3  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |

**Footnotes:**

- (4) Non-Recurring Engineering (NRE) funding is required to accelerate updating the aging and obsolete SPS-73 to the Next Generation Surface Search Radar (NGSSR) configuration which will address Cyber and Electro-magnetic Warfare threats that did not exist at the time of the original SPS-73 design. NRE funds will be utilized for government efforts to finalize NGSSR specifications, including design/cost trade-offs to assess different features that could affect cost/schedule such as dual system Installations, track fusion, tactical training, AEGIS and SSDS combat system interfaces, and cyber security. The FY19 funding increase will complete software development; procure and test NGSSR qualification units; and finalize NGSSR hardware configuration. Qualification testing includes navigation radar International Maritime Organization (IMO) and Safety Of Life At Sea (SOLAS) compliance, Periscope Detection and Discrimination (PDD) interface, Combat System Interface validation, Surface Search Radar validation, cyber security, shock, Electromagnetic interference (EMI) and environmental.
- (5) These funds will accelerate initial procurement of NGSSR production units as directed by the CNO as a result of the October 2017 Commander Fleet Forces Comprehensive Review; this priority requirement is directly related to the McCain and Fitzgerald collisions.
- (6) The increase in Production Support in FY19 and out provides support for the significantly increased production of hardware and hardware components and is composed primarily of Warfare Center Activity support, Software Support Activity (SSA), Integrated Logistics Agent (ILA), Acquisition Engineering Agent (AEA), Technical Design Agent (TDA) and Professional Support Services (PSS). Also includes support for cybersecurity compliance and software certification.
- (7) Miscellaneous ECP support is required to address hardware and software obsolescence/availability issues which requires research and investigation by the ISEA to locate, test, and provide suitable substitutes to maintain Fleet Navigation Readiness and Safety of Life at Sea (SOLAS). Miscellaneous ECP funding will continue to be required throughout the outyears until sufficient quantities of NGSSR are fielded, reducing the burden of the legacy systems.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|---------------------------------------------------------------------|-------------|---------------|-----------------|---------|------------------------------------------------------------------------------------------------------------------|---------|-------------|---------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         |         |                                                                     |             |               |                 |         | Date: February 2018                                                                                              |         |             |         |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |         | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |             |               |                 |         | Modification Number / Title:<br>2 / DC009 - AN/SPS-48G RADAR<br>OBSOLESCENCE AND AVAILABILITY<br>RECOVERY (ROAR) |         |             |         |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |         |                                                                     |             |               | MDAP/MAIS Code: |         |                                                                                                                  |         |             |         |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                        | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022                                                                                                          | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -           | -       | -       | -                                                                   | -           | -             | -               | -       | -                                                                                                                | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 280.571     | 9.544   | 39.017  | 5.648                                                               | 0.000       | 5.648         | 8.772           | 5.545   | 1.540                                                                                                            | 0.000   | 2.750       | 353.387 |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -       | -                                                                   | -           | -             | -               | -       | -                                                                                                                | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 280.571     | 9.544   | 39.017  | 5.648                                                               | 0.000       | 5.648         | 8.772           | 5.545   | 1.540                                                                                                            | 0.000   | 2.750       | 353.387 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -       | -                                                                   | -           | -             | -               | -       | -                                                                                                                | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 280.571     | 9.544   | 39.017  | 5.648                                                               | 0.000       | 5.648         | 8.772           | 5.545   | 1.540                                                                                                            | 0.000   | 2.750       | 353.387 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         |                                                                     |             |               |                 |         |                                                                                                                  |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -       | -                                                                   | -           | -             | -               | -       | -                                                                                                                | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -       | -                                                                   | -           | -             | -               | -       | -                                                                                                                | -       | -           | -       |
| Description:<br>The AN/SPS-48G 3-D Air Surveillance Radar is a follow-on to the existing AN/SPS-48E onboard Aircraft Carriers and large-deck Amphibious ships. AN/SPS-48G was initiated in response to Fleet complaints regarding AN/SPS-48E reliability and supportability. Upgrade of the AN/SPS-48E with the AN/SPS-48G remains a high Fleet priority as it will reduce Operation and Support (O&S) costs and improve Operational Availability. Both factors are cited by the Fleet as unsatisfactory for the AN/SPS-48E. The goal is to replace the AN/SPS-48E as rapidly as possible so the Fleet can realize this cost avoidance. Current efforts include the manufacturing of the AN/SPS-48G upgrade kits with associated production support as well as modifications to the AN/SPS-48G brought about by initial Fleet introduction and Fleet operations. Production lead time is 24 months for the initial unit with subsequent units delivered at two month intervals after initial delivery. Equipment delivery for installation is required thirty days prior to FMP availability start in accordance with Navy Modernization Process Management. Engineering Change Order funding is required to address Fleet recommended modifications/requirements and Information Assurance, Obsolescence, and Diminishing Manufacturing Sources (DMS) issues. Engineering Change Proposal funding is required to initiate incorporation of High Diver Detection and Tracking functionality. This capability was designed and incorporated into the AN/SPS-48E after design of the AN/SPS-48G had been initiated. This change needs to be translated into the different hardware and software architectures of the AN/SPS-48G. FY18 is the last year of AN/SPS-48G procurements.<br><br>Installation funding for advanced planning (AP) and planning yard design services allocation (DSA) is required up to one year prior to the year of installation. DSA funds are used for Ship Installation Drawings (SIDs), Alteration Installation Team (AIT) contracting fees, and shipchecks. The FY17 \$4M reduction to installation has resulted in movement of LHA-6 to outside the FYDP, LPD-23 to FY22 and LPD-22 to FY21. |             |         |         |                                                                     |             |               |                 |         |                                                                                                                  |         |             |         |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                    |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   | <b>Date:</b> February 2018                                                                                              |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                              |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                   |                                   |                                   |                                   |                                   | <b>Modification Number / Title:</b><br>2 / DC009 - AN/SPS-48G RADAR<br>OBSOLESCENCE AND AVAILABILITY<br>RECOVERY (ROAR) |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                       |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>            |                                   |                                                                                                                         |                                   |                                   |  |
| <b>Models of Systems Affected:</b> AN/SPS-48G                                                                 |                                   |                                   |                                   | <b>Modification Type:</b> TBD                                              |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b>     |                                   |                                                                                                                         |                                   |                                   |  |
| <b>Financial Plan</b>                                                                                         | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019<br/>Base</b>                                                    | <b>FY 2019<br/>OCO</b>            | <b>FY 2019<br/>Total</b>          | <b>FY 2020</b>                    | <b>FY 2021</b>                    | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                                                          | <b>To<br/>Complete</b>            | <b>Total</b>                      |  |
|                                                                                                               | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                          | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                                                       | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                            |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> DC009 - AN/SPS-48G<br>RADAR OBSOLESCENCE AND AVAILABILITY<br>RECOVERY (ROAR) |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| B Kits                                                                                                        |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| Recurring                                                                                                     |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| 1.1.1) AN/SPS-48G HARDWARE - FMP - NonOrganic<br>(8)                                                          | 21 / 131.237                      | - / -                             | 4 / 25.372                        | - / -                                                                      | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | 25 / 156.609                      |  |
| 1.1.2) EQUIPMENT NONRECURRING - Organic                                                                       | - / 11.191                        | - / -                             | - / -                             | - / -                                                                      | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | - / 11.191                        |  |
| 1.1.3) ENGINEERING CHANGE PROPOSALS -<br>Organic <sup>(9)</sup>                                               | - / 15.319                        | - / 2.921                         | - / 2.837                         | - / 0.461                                                                  | - / -                             | - / 0.461                         | - / 0.441                         | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | - / 21.979                        |  |
| 1.1.4) ENGINEERING CHANGE ORDERS - Organic                                                                    | - / 53.623                        | - / 1.845                         | - / 1.871                         | - / 0.579                                                                  | - / -                             | - / 0.579                         | - / 0.562                         | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | - / 58.480                        |  |
| 1.1.5) AN/SPS-48G HARDWARE - NON-FMP -<br>NonOrganic                                                          | 2 / 12.973                        | - / -                             | - / -                             | - / -                                                                      | - / -                             | - / -                             | - / -                             | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | 2 / 12.973                        |  |
| <b>Subtotal: Recurring</b>                                                                                    | - / 224.343                       | - / 4.766                         | - / 30.080                        | - / 1.040                                                                  | - / -                             | - / 1.040                         | - / 1.003                         | - / -                             | - / -                             | - / -                                                                                                                   | - / 0.000                         | - / 261.232                       |  |
| <b>Subtotal: DC009 - AN/SPS-48G RADAR<br/>OBSOLESCENCE AND AVAILABILITY RECOVERY<br/>(ROAR)</b>               | 23 / 224.343                      | - / 4.766                         | 4 / 30.080                        | - / 1.040                                                                  | - / -                             | - / 1.040                         | - / 1.003                         | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | 27 / 261.232                      |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                          | - / 224.343                       | - / 4.766                         | - / 30.080                        | - / 1.040                                                                  | - / -                             | - / 1.040                         | - / 1.003                         | - / -                             | - / -                             | - / -                                                                                                                   | - / 0.000                         | - / 261.232                       |  |
| <b>Support (All Modification Items)</b>                                                                       |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| 2.1) PRODUCTION SUPPORT <sup>(10)</sup>                                                                       | - / 22.441                        | - / 1.525                         | - / 1.037                         | - / 0.384                                                                  | - / -                             | - / 0.384                         | - / 0.342                         | - / -                             | - / -                             | - / -                                                                                                                   | - / -                             | - / 25.729                        |  |
| <b>Subtotal: Support</b>                                                                                      | - / 22.441                        | - / 1.525                         | - / 1.037                         | - / 0.384                                                                  | - / -                             | - / 0.384                         | - / 0.342                         | - / -                             | - / -                             | - / -                                                                                                                   | - / 0.000                         | - / 25.729                        |  |
| <b>Installation</b>                                                                                           |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| <b>Modification Item 1 of 1:</b> DC009 - AN/SPS-48G RADAR<br>OBSOLESCENCE AND AVAILABILITY RECOVERY<br>(ROAR) | - / 33.787                        | - / 3.253                         | - / 7.900                         | - / 4.224                                                                  | - / 0.000                         | - / 4.224                         | - / 7.427                         | - / 5.545                         | - / 1.540                         | - / 0.000                                                                                                               | - / 2.750                         | - / 66.426                        |  |
| <b>Subtotal: Installation</b>                                                                                 | - / 33.787                        | - / 3.253                         | - / 7.900                         | - / 4.224                                                                  | - / -                             | - / 4.224                         | - / 7.427                         | - / 5.545                         | - / 1.540                         | - / -                                                                                                                   | - / 2.750                         | - / 66.426                        |  |
| <b>Total</b>                                                                                                  |                                   |                                   |                                   |                                                                            |                                   |                                   |                                   |                                   |                                   |                                                                                                                         |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                      | <b>280.571</b>                    | <b>9.544</b>                      | <b>39.017</b>                     | <b>5.648</b>                                                               | <b>0.000</b>                      | <b>5.648</b>                      | <b>8.772</b>                      | <b>5.545</b>                      | <b>1.540</b>                      | <b>0.000</b>                                                                                                            | <b>2.750</b>                      | <b>353.387</b>                    |  |

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|                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
|---------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                              |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                 |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                        |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Exelis                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Manufacturer Location: VAN NUYS, CA |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 0                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Production Leadtime (in Months): 24 |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                            |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                                                   |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                          |            |                                |           |                                |           | Mar 2018                       |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                          |            |                                |           |                                |           | Mar 2020                       |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: AN/SPS-48G HARDWARE - FMP        |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                         |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                                    |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                         |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                             |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                                    |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                             |            | 11 / 29.421                    |           | 1 / 3.253                      |           | 4 / 7.900                      |           | 1 / 4.224                      |           | 0 / 0.000                                                                  |           | 1 / 4.224                      |           | 3 / 5.577                      |                                     | 1 / 1.575                      |           | - / -                          |           | - / -                                                                                                             |           | 0 / 0.000                      |           | 21 / 51.950                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | 0 / 1.850                      |                                     | 2 / 3.970                      |           | 1 / 1.540                      |           | - / -                                                                                                             |           | 1 / 2.750                      |           | 4 / 10.110                     |           |                |           |           |           |           |            |
| FY 2019                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                   |            | 11 / 29.421                    |           | 1 / 3.253                      |           | 4 / 7.900                      |           | 1 / 4.224                      |           | 0 / 0.000                                                                  |           | 1 / 4.224                      |           | 3 / 7.427                      |                                     | 3 / 5.545                      |           | 1 / 1.540                      |           | - / -                                                                                                             |           | 1 / 2.750                      |           | 25 / 62.060                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                     |                                |           |                                |           |                                                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                                                                   |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                         |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                  | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                                         | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                      | 11         | -                              | -         | -                              | 1         | 1                              | -         | 2                              | 1         | -                                                                          | -         | -                              | 1         | -                              | 1                                   | 2                              | -         | -                              | -         | 1                                                                                                                 | 2         | -                              | -         | 1                              | -         | -              | -         | -         | -         | 1         | 25         |
| Out                                                                                                     | 8          | -                              | -         | 2                              | 1         | -                              | -         | -                              | 1         | -                                                                          | -         | -                              | 2         | -                              | 1                                   | -                              | 2         | -                              | -         | 2                                                                                                                 | 1         | -                              | 1         | -                              | 2         | -              | -         | 1         | -         | 1         | 25         |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)

## Installation Information

**Method of Implementation:** AIT:: Installation Name: AN/SPS-48G HARDWARE - NON-FMP

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 2 / 4.366                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 4.366                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 2 / 4.366                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 4.366                      |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 2   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 2   |
| Out | 2   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 2   |

## Footnotes:

<sup>(8)</sup> Installation funding for advanced planning (AP) and planning yard Design Services Allocation (DSA) is required up to one year prior to the year of installation. DSA funds are used for Ship Installation Drawings (SIDs), Alteration Installation Team (AIT) contracting fees, and shipchecks. Although on the P-3a it may appear that the unit installation cost has increased significantly in FY17, and from FY18 to FY19, this is misleading due to the combination of installation, AP, and DSA costs into one single figure. Additionally, installations costs vary by ship class. Specifically, in FY17, there is one installation at a cost of \$1.412M, plus \$0.511M in DSA costs and \$1.33M in AP costs. In FY18, there are four installations with a combined cost of \$5.4M (\$1.350M average), plus \$0.6M in AP costs and \$1.9M in DSA costs. In FY19, there is one installation with a cost of \$1.45M, plus \$1.95M in AP costs and \$0.82M in DSA costs.

<sup>(9)</sup> Engineering Change Proposal funding is primarily to incorporate High Diver Detection and Tracking functionality. This capability was designed and incorporated into the AN/SPS-48E after design of the AN/SPS-48G had been initiated. This change now needs to be translated into the different hardware and software architectures of the AN/SPS-48G.

<sup>(10)</sup> Production Support provides for Government oversight of production, Government and Original Equipment Manufacturer (OEM) support of production related software and hardware problems, and engineering as well as Integrated Logistics Support (ILS) efforts in support of production and fielding.

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                              |                    |               |
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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                            |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                   |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / DC015 - TACTICAL<br>ENVIRONMENTAL PROCESSOR (TEP) |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                            |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                              |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                               | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                            | 6.102              | 1.193          | 1.299          | 1.342                                                                      | 0.000              | 1.342                | 1.275                  | 1.349          | 1.510          | 1.489                                                                                        | 11.111             | 26.670        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                               | 6.102              | 1.193          | 1.299          | 1.342                                                                      | 0.000              | 1.342                | 1.275                  | 1.349          | 1.510          | 1.489                                                                                        | 11.111             | 26.670        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>6.102</b>       | <b>1.193</b>   | <b>1.299</b>   | <b>1.342</b>                                                               | <b>0.000</b>       | <b>1.342</b>         | <b>1.275</b>           | <b>1.349</b>   | <b>1.510</b>   | <b>1.489</b>                                                                                 | <b>11.111</b>      | <b>26.670</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                              |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                                                                          | -                  | -                    | -                      | -              | -              | -                                                                                            | -                  | -             |
| <b>Description:</b><br>Provides real-time valunumeric wind profiles, convective weather detection/display, and radar refractivity assessments from AN/SPY-1 radar returns. TEP will be an adjunct processor and display, tapping radar data from weather and refractivity data, with users able to access information through Secret Internet Protocol Router (SIPR). Commercial Off The Shelf (COTS) refresh funding in FY18-FY23 is to address cyber security requirements. |                    |                |                |                                                                            |                    |                      |                        |                |                |                                                                                              |                    |               |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>3 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                            |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                           |                                |                                |  |
| <b>Models of Systems Affected:</b> TACTICAL ENVIRONMENTAL PROCESSOR (TEP)        |                                |                                |                                | <b>Modification Type:</b> TBD                                              |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                           |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                            | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| <b>Modification Item 1 of 1:</b> DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)  |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| 1.1.1) DDG HARDWARE - FMP - NonOrganic <sup>(11)</sup>                           | 4 / 1.282                      | 2 / 0.518                      | 2 / 0.556                      | 3 / 0.725                                                                  | - / -                          | 3 / 0.725                      | 2 / 0.533                      | 2 / 0.551                      | 3 / 0.750                      | 3 / 0.750                                                                                 | 15 / 5.076                     | 36 / 10.741                    |  |
| 1.1.2) DDG COTS REFRESH - Organic <sup>(12)</sup>                                | - / -                          | - / 0.100                      | - / 0.100                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / 0.106                      | - / 0.108                      | - / -                                                                                     | - / 0.438                      | - / 0.852                      |  |
| 1.1.3) TEP SHORE SITES HARDWARE - NonOrganic                                     | 3 / 0.499                      | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                     | - / -                          | 3 / 0.499                      |  |
| <b>Subtotal: Recurring</b>                                                       | - / 1.781                      | - / 0.618                      | - / 0.656                      | - / 0.725                                                                  | - / -                          | - / 0.725                      | - / 0.533                      | - / 0.657                      | - / 0.858                      | - / 0.750                                                                                 | - / 5.514                      | - / 12.092                     |  |
| <b>Subtotal: DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)</b>                  | 7 / 1.781                      | 2 / 0.618                      | 2 / 0.656                      | 3 / 0.725                                                                  | - / -                          | 3 / 0.725                      | 2 / 0.533                      | 2 / 0.657                      | 3 / 0.858                      | 3 / 0.750                                                                                 | 15 / 5.514                     | 39 / 12.092                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                             | - / 1.781                      | - / 0.618                      | - / 0.656                      | - / 0.725                                                                  | - / -                          | - / 0.725                      | - / 0.533                      | - / 0.657                      | - / 0.858                      | - / 0.750                                                                                 | - / 5.514                      | - / 12.092                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| 2.1) PRODUCTION SUPPORT <sup>(13)</sup>                                          | - / 3.837                      | - / 0.438                      | - / 0.442                      | - / 0.392                                                                  | - / -                          | - / 0.392                      | - / 0.425                      | - / 0.437                      | - / 0.370                      | - / 0.385                                                                                 | - / 2.404                      | - / 9.130                      |  |
| <b>Subtotal: Support</b>                                                         | - / 3.837                      | - / 0.438                      | - / 0.442                      | - / 0.392                                                                  | - / -                          | - / 0.392                      | - / 0.425                      | - / 0.437                      | - / 0.370                      | - / 0.385                                                                                 | - / 2.404                      | - / 9.130                      |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| <b>Modification Item 1 of 1:</b> DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)  | - / 0.484                      | - / 0.137                      | - / 0.201                      | - / 0.225                                                                  | - / 0.000                      | - / 0.225                      | - / 0.317                      | - / 0.255                      | - / 0.282                      | - / 0.354                                                                                 | - / 3.193                      | - / 5.448                      |  |
| <b>Subtotal: Installation</b>                                                    | - / 0.484                      | - / 0.137                      | - / 0.201                      | - / 0.225                                                                  | - / -                          | - / 0.225                      | - / 0.317                      | - / 0.255                      | - / 0.282                      | - / 0.354                                                                                 | - / 3.193                      | - / 5.448                      |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                            |                                |                                |                                |                                |                                |                                                                                           |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | 6.102                          | 1.193                          | 1.299                          | 1.342                                                                      | 0.000                          | 1.342                          | 1.275                          | 1.349                          | 1.510                          | 1.489                                                                                     | 11.111                         | 26.670                         |  |



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|----------------------------------------------------------------------------------|------------|---------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|----------------------------------------------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|-------------------------------------------------------------------------------------------|-----------|---------------------------------------|-----------|---------------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           | <b>Date:</b> February 2018            |           |                                             |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 |            |                                       |           |                                       |           |                                       |           |                                       |           | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |           |                                       |           |                                             |           |                                       |           |                                       |           | <b>Modification Number / Title:</b><br>3 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           | <b>MDAP/MAIS Code:</b>                      |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)  |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           |                                             |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                  |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           |                                             |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| Manufacturer Name: BASIC COMMERCE AND INDUSTRIES, INC                            |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           | Manufacturer Location: MOORESTOWN, NJ       |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 0                                   |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           | Production Leadtime <i>(in Months)</i> : 11 |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                     |            | <b>FY 2017</b>                        |           |                                       |           | <b>FY 2018</b>                        |           |                                       |           | <b>FY 2019</b>                                                             |           |                                       |           | <b>FY 2020</b>                              |           |                                       |           | <b>FY 2021</b>                        |           |                                                                                           |           | <b>FY 2022</b>                        |           |                                       |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                   |            | Sep 2017                              |           |                                       |           | Feb 2018                              |           |                                       |           | Dec 2018                                                                   |           |                                       |           | Dec 2019                                    |           |                                       |           | Dec 2020                              |           |                                                                                           |           | Dec 2021                              |           |                                       |           | Dec 2022       |           |           |           |           |            |
| Delivery Dates                                                                   |            | Aug 2018                              |           |                                       |           | Jan 2019                              |           |                                       |           | Nov 2019                                                                   |           |                                       |           | Nov 2020                                    |           |                                       |           | Nov 2021                              |           |                                                                                           |           | Nov 2022                              |           |                                       |           | Nov 2023       |           |           |           |           |            |
| <b>Installation Information</b>                                                  |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           |                                             |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: DDG HARDWARE - FMP     |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           |                                             |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                         |            | <b>Prior Years</b>                    |           | <b>FY 2017</b>                        |           | <b>FY 2018</b>                        |           | <b>FY 2019 Base</b>                   |           | <b>FY 2019 OCO</b>                                                         |           | <b>FY 2019 Total</b>                  |           | <b>FY 2020</b>                              |           | <b>FY 2021</b>                        |           | <b>FY 2022</b>                        |           | <b>FY 2023</b>                                                                            |           | <b>To Complete</b>                    |           | <b>Total</b>                          |           |                |           |           |           |           |            |
|                                                                                  |            | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i>                                      |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i>       |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i>                                                     |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           | <i>Qty (Each) / Total Cost (\$ M)</i> |           |                |           |           |           |           |            |
| Prior Years                                                                      |            | 3 / 0.339                             |           | 1 / 0.102                             |           | - / -                                 |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | - / -                                       |           | - / -                                 |           | - / -                                 |           | - / -                                                                                     |           | 0 / 0.000                             |           | 4 / 0.441                             |           |                |           |           |           |           |            |
| FY 2017                                                                          |            | - / -                                 |           | 0 / 0.035                             |           | 2 / 0.164                             |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | - / -                                       |           | - / -                                 |           | - / -                                 |           | - / -                                                                                     |           | 0 / 0.000                             |           | 2 / 0.199                             |           |                |           |           |           |           |            |
| FY 2018                                                                          |            | - / -                                 |           | - / -                                 |           | 0 / 0.037                             |           | 2 / 0.165                             |           | 0 / 0.000                                                                  |           | 2 / 0.165                             |           | - / -                                       |           | - / -                                 |           | - / -                                 |           | - / -                                                                                     |           | 0 / 0.000                             |           | 2 / 0.202                             |           |                |           |           |           |           |            |
| FY 2019                                                                          |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | 0 / 0.060                             |           | 0 / 0.000                                                                  |           | 0 / 0.060                             |           | 3 / 0.275                                   |           | - / -                                 |           | - / -                                 |           | - / -                                                                                     |           | 0 / 0.000                             |           | 3 / 0.335                             |           |                |           |           |           |           |            |
| FY 2020                                                                          |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | 0 / 0.042                                   |           | 2 / 0.212                             |           | - / -                                 |           | - / -                                                                                     |           | 0 / 0.000                             |           | 2 / 0.254                             |           |                |           |           |           |           |            |
| FY 2021                                                                          |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | - / -                                       |           | 0 / 0.043                             |           | 2 / 0.220                             |           | - / -                                                                                     |           | 0 / 0.000                             |           | 2 / 0.263                             |           |                |           |           |           |           |            |
| FY 2022                                                                          |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | - / -                                       |           | - / -                                 |           | 0 / 0.062                             |           | 3 / 0.274                                                                                 |           | 0 / 0.000                             |           | 3 / 0.336                             |           |                |           |           |           |           |            |
| FY 2023                                                                          |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | - / -                                       |           | - / -                                 |           | - / -                                 |           | 0 / 0.080                                                                                 |           | 3 / 0.304                             |           | 3 / 0.384                             |           |                |           |           |           |           |            |
| To Complete                                                                      |            | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                 |           | - / -                                                                      |           | - / -                                 |           | - / -                                       |           | - / -                                 |           | - / -                                 |           | - / -                                                                                     |           | 15 / 2.889                            |           | 15 / 2.889                            |           |                |           |           |           |           |            |
| Total                                                                            |            | 3 / 0.339                             |           | 1 / 0.137                             |           | 2 / 0.201                             |           | 2 / 0.225                             |           | 0 / 0.000                                                                  |           | 2 / 0.225                             |           | 3 / 0.317                                   |           | 2 / 0.255                             |           | 2 / 0.282                             |           | 3 / 0.354                                                                                 |           | 18 / 3.193                            |           | 36 / 5.303                            |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                     |            |                                       |           |                                       |           |                                       |           |                                       |           |                                                                            |           |                                       |           |                                             |           |                                       |           |                                       |           |                                                                                           |           |                                       |           |                                       |           |                |           |           |           |           |            |
|                                                                                  | <b>PYS</b> | <b>FY 2017</b>                        |           |                                       |           | <b>FY 2018</b>                        |           |                                       |           | <b>FY 2019</b>                                                             |           |                                       |           | <b>FY 2020</b>                              |           |                                       |           | <b>FY 2021</b>                        |           |                                                                                           |           | <b>FY 2022</b>                        |           |                                       |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                  |            | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                                                                  | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                                   | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                                                                                 | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b>                             | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                               | 3          | -                                     | -         | 1                                     | -         | -                                     | -         | -                                     | -         | 2                                                                          | -         | 2                                     | -         | -                                           | -         | 2                                     | -         | 1                                     | -         | 2                                                                                         | -         | -                                     | -         | 1                                     | 1         | -              | 1         | 1         | 1         | 18        | 36         |
| Out                                                                              | 3          | -                                     | -         | -                                     | -         | -                                     | -         | -                                     | -         | 1                                                                          | -         | -                                     | 2         | -                                           | -         | 1                                     | 1         | -                                     | -         | 2                                                                                         | -         | 1                                     | -         | -                                     | 2         | -              | -         | -         | 1         | 22        | 36         |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>3 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: TEP SHORE SITES HARDWARE

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 3 / 0.145                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.145                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 3 / 0.145                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 0.145                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 3   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |
| Out | 3   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 3   |

**Footnotes:**

(11) The change in TEP unit costs and quantity since PB18 for FY18-19 is due to lower costs based on actual contract pricing. Due to the lower actual contract pricing, the program plans to procure three units at a unit cost of \$241.7K.

(12) COTS Refresh funding includes replacement of Commercial Off-The-Shelf (COTS) components such as processors, displays, computer operating systems, commercially available software and also addresses emerging cyber security requirements.

(13) Production support includes engineering services, Integrated Logistics Support (ILS) documentation updates, ORDALT instructions, engineering change proposals, and Diminishing Manufacturing Sources and Material Shortages (DMSMS) analysis.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|----------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|-------------------------------------------------------------------------------|--------------------|----------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                     |                                                                            |                      |                        |                |                | <b>Date:</b> February 2018                                                    |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                     |                                                                            |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                               |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                         | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 34.628             | 18.702         | 36.251         | 30.333              | 0.000                                                                      | 30.333               | 23.657                 | 25.293         | 15.250         | 15.501                                                                        | 373.398            | 573.013        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 34.628             | 18.702         | 36.251         | 30.333              | 0.000                                                                      | 30.333               | 23.657                 | 25.293         | 15.250         | 15.501                                                                        | 373.398            | 573.013        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>34.628</b>      | <b>18.702</b>  | <b>36.251</b>  | <b>30.333</b>       | <b>0.000</b>                                                               | <b>30.333</b>        | <b>23.657</b>          | <b>25.293</b>  | <b>15.250</b>  | <b>15.501</b>                                                                 | <b>373.398</b>     | <b>573.013</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                     |                                                                            |                      |                        |                |                |                                                                               |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                          | -                    | -                      | -              | -              | -                                                                             | -                  | -              |
| <p><b>Description:</b></p> <p>DC018 AN/SPY-1 RM&amp;A IMPROVEMENTS - These Reliability, Maintainability, and Availability (RM&amp;A) improvements are intended to reduce cascading failures, mitigate obsolescence issues, and improve reliability in support of Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD) missions while still providing AN/SPY-1 Radar Total Ownership Cost (TOC) reductions. The improvements include, but are not limited to, installation for Sidewall Capacitor Circuit Protection and 10kW Traveling Wave Tube (TWT) Monitoring Circuits Ordnance Alterations (ORDALTS) for AN/SPY-1; B (V), D, D (V), CG and DDGs. Solid State Switch Assemblies (SSSA) will replace legacy switch tube modulator deck via an ORDALT. Multi-Mission Signal Processor (MMSP) is the signal processor for the AN/SPY-1 radar. MMSP Refresh (MMSP-R) cabinets will be procured to provide production representative configurations for land-based testing and training to support AEGIS ships at AEGIS Training and Readiness Center (ATRC) and Surface Combat System Center (SCSC) Wallops Island. Increased funding in FY18 includes the procurement of two MMSP-R cabinets for Virginia sites, procurement of assets and shock qualification testing of SSSA and SPY-1D(V) Final Power Amplifier (FPA) cabinet required by MILSPEC 901-D.</p> <p>Since PB18, procurement and installation of SSSA for DDG ships, shore sites and spares have been adjusted to align with changes to DDG Modernization availability periods in FY19-22.</p> |                    |                |                |                     |                                                                            |                      |                        |                |                |                                                                               |                    |                |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                         |                                |                                |                                |                                                                     |                                |                                |                                |                                | Date: February 2018                                                    |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10                   |                                |                                |                                | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |                                |                                |                                |                                | Modification Number / Title:<br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                            |                                |                                |                                |                                                                     |                                |                                | MDAP/MAIS Code:                |                                |                                                                        |                                |                                |                                |  |
| Models of Systems Affected: AN/SPY-1 RM&A IMPROVEMENTS                                      |                                |                                |                                | Modification Type: TBD                                              |                                |                                |                                |                                | Related RDT&E PEs: 0604501N                                            |                                |                                |                                |  |
| Financial Plan                                                                              | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                        | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                                | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                                 |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| B Kits                                                                                      |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| Recurring                                                                                   |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| 1.1.1) SIDEWALL AND 10KW TWT DDG HARDWARE - NonOrganic <sup>(14)</sup>                      | 45 / 5.231                     | 9 / 1.505                      | 4 / 1.100                      | 4 / 1.122                                                           | - / -                          | 4 / 1.122                      | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | 62 / 8.958                     |  |
| 1.1.2) PACK UP KITS - Organic                                                               | 3 / 4.125                      | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | 3 / 4.125                      |  |
| 1.1.3) SIDEWALL AND 10KW TWT CG HARDWARE - NonOrganic <sup>(15)</sup>                       | 10 / 2.621                     | 6 / 1.121                      | - / -                          | 2 / 0.688                                                           | - / -                          | 2 / 0.688                      | 4 / 0.713                      | - / -                          | 2 / 0.374                                                              | - / -                          | - / -                          | 24 / 5.517                     |  |
| 1.1.4) SIDEWALL AND 10KW TWT SHORE SITE HARDWARE - NonOrganic                               | 8 / 1.172                      | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | 8 / 1.172                      |  |
| 1.1.5) SOLID STATE SWITCH ASSEMBLY DDG HARDWARE - NonOrganic                                | 2 / 9.651                      | 1 / 5.993                      | 3 / 13.052                     | 2 / 8.476                                                           | - / -                          | 2 / 8.476                      | 3 / 13.301                     | 4 / 17.827                     | 2 / 9.307                                                              | 2 / 9.373                      | 54 / 261.007                   | 73 / 347.987                   |  |
| 1.1.6) SOLID STATE SWITCH ASSEMBLY SHORE SITE HARDWARE - NonOrganic <sup>(16)</sup>         | 1 / 4.108                      | 1 / 4.108                      | - / -                          | 3 / 12.743                                                          | - / -                          | 3 / 12.743                     | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | 5 / 20.959                     |  |
| 1.1.7) SOLID STATE SWITCH ASSEMBLY SPARES - Organic <sup>(17)</sup>                         | - / -                          | 9 / 4.621                      | 3 / 1.631                      | - / -                                                               | - / -                          | - / -                          | 6 / 3.453                      | - / -                          | 2 / 1.195                                                              | - / -                          | 43 / 29.119                    | 63 / 40.019                    |  |
| 1.1.8) SOLID STATE SWITCH ASSEMBLY FINAL POWER AMPLIFIER ENV/QUAL - Organic <sup>(18)</sup> | - / -                          | - / -                          | 1 / 3.874                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | 1 / 3.874                      |  |
| 1.1.9) MMSP-R SHORE SITE HARDWARE - NonOrganic <sup>(19)</sup>                              | - / -                          | - / -                          | 2 / 13.695                     | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | 2 / 13.695                     |  |
| Subtotal: Recurring                                                                         | - / 26.908                     | - / 17.348                     | - / 33.352                     | - / 23.029                                                          | - / -                          | - / 23.029                     | - / 17.467                     | - / 17.827                     | - / 10.876                                                             | - / 9.373                      | - / 290.126                    | - / 446.306                    |  |
| Subtotal: DC018 - AN/SPY-1 RM&A IMPROVEMENTS                                                | 69 / 26.908                    | 26 / 17.348                    | 13 / 33.352                    | 11 / 23.029                                                         | - / -                          | 11 / 23.029                    | 13 / 17.467                    | 4 / 17.827                     | 6 / 10.876                                                             | 2 / 9.373                      | 97 / 290.126                   | 241 / 446.306                  |  |
| Subtotal: Procurement, All Modification Items                                               | - / 26.908                     | - / 17.348                     | - / 33.352                     | - / 23.029                                                          | - / -                          | - / 23.029                     | - / 17.467                     | - / 17.827                     | - / 10.876                                                             | - / 9.373                      | - / 290.126                    | - / 446.306                    |  |
| Support (All Modification Items)                                                            |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| 2.1) PRODUCTION SUPPORT <sup>(20)</sup>                                                     | - / 3.891                      | - / 1.354                      | - / 1.226                      | - / 0.823                                                           | - / -                          | - / 0.823                      | - / 0.998                      | - / 1.180                      | - / 0.878                                                              | - / 1.176                      | - / 10.388                     | - / 21.914                     |  |
| Subtotal: Support                                                                           | - / 3.891                      | - / 1.354                      | - / 1.226                      | - / 0.823                                                           | - / -                          | - / 0.823                      | - / 0.998                      | - / 1.180                      | - / 0.878                                                              | - / 1.176                      | - / 10.388                     | - / 21.914                     |  |
| Installation                                                                                |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS                                | - / 3.829                      | - / 0.000                      | - / 1.673                      | - / 6.481                                                           | - / 0.000                      | - / 6.481                      | - / 5.192                      | - / 6.286                      | - / 3.496                                                              | - / 4.952                      | - / 72.884                     | - / 104.793                    |  |
| Subtotal: Installation                                                                      | - / 3.829                      | - / -                          | - / 1.673                      | - / 6.481                                                           | - / -                          | - / 6.481                      | - / 5.192                      | - / 6.286                      | - / 3.496                                                              | - / 4.952                      | - / 72.884                     | - / 104.793                    |  |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                     |                                |                                |                                |                                | Date: February 2018                                                    |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 10 |                                |                                |                                | P-1 Line Item Number / Title:<br>2980 / Items less than \$5 Million |                                |                                |                                |                                | Modification Number / Title:<br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                     |                                |                                | MDAP/MAIS Code:                |                                |                                                                        |                                |                                |                                |  |
| Models of Systems Affected: AN/SPY-1 RM&A IMPROVEMENTS                    |                                |                                |                                | Modification Type: TBD                                              |                                |                                |                                |                                | Related RDT&E PEs: 0604501N                                            |                                |                                |                                |  |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                        | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                                | FY 2023                        | To Complete                    | Total                          |  |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Total                                                                     |                                |                                |                                |                                                                     |                                |                                |                                |                                |                                                                        |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                         | 34.628                         | 18.702                         | 36.251                         | 30.333                                                              | 0.000                          | 30.333                         | 23.657                         | 25.293                         | 15.250                                                                 | 15.501                         | 373.398                        | 573.013                        |  |

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|----------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------------|-------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |                                |                                |                                |                                                                            |                                |                                | <b>Date:</b> February 2018            |                                                                               |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10             |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                |                                |                                       | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |                                |                                |                                |                                                                            |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                               |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> DC018 - AN/SPY-1 RM&A IMPROVEMENTS                          |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                               |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                              |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                               |                                |                                |                                |                                |
| Manufacturer Name: SOLID STATE SWITCH ASSEMBLY (SSSA) - RAYTHEON                             |                                |                                |                                |                                                                            |                                |                                | Manufacturer Location: Andover, MA    |                                                                               |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                                       |                                |                                |                                |                                                                            |                                |                                | Production Leadtime (in Months): 18   |                                                                               |                                |                                |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                               |                                |                                |                                |                                |
| Contract Dates                                                                               | Jun 2017                       | Jun 2018                       | Mar 2019                       | Mar 2020                                                                   | Mar 2021                       | Mar 2022                       | Mar 2023                              |                                                                               |                                |                                |                                |                                |
| Delivery Dates                                                                               | Dec 2018                       | Dec 2019                       | Sep 2020                       | Sep 2021                                                                   | Sep 2022                       | Sep 2023                       | Sep 2024                              |                                                                               |                                |                                |                                |                                |
| Manufacturer Name: SIDEWALL AND 10KW TWT ORDALTs - RAYTHEON                                  |                                |                                |                                |                                                                            |                                |                                | Manufacturer Location: Chesapeake, VA |                                                                               |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                                       |                                |                                |                                |                                                                            |                                |                                | Production Leadtime (in Months): 12   |                                                                               |                                |                                |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                               |                                |                                |                                |                                |
| Contract Dates                                                                               | May 2017                       | Jun 2018                       | Mar 2019                       | Mar 2020                                                                   |                                | Mar 2022                       |                                       |                                                                               |                                |                                |                                |                                |
| Delivery Dates                                                                               | May 2018                       | Jun 2019                       | Mar 2020                       | Mar 2021                                                                   |                                | Mar 2023                       |                                       |                                                                               |                                |                                |                                |                                |
| Manufacturer Name: MMSP-R DIGITAL CABINETS - LOCKHEED MARTIN                                 |                                |                                |                                |                                                                            |                                |                                | Manufacturer Location: Moorestown, NJ |                                                                               |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 0                                                       |                                |                                |                                |                                                                            |                                |                                | Production Leadtime (in Months): 12   |                                                                               |                                |                                |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                               |                                |                                |                                |                                |
| Contract Dates                                                                               |                                | May 2018                       |                                |                                                                            |                                |                                |                                       |                                                                               |                                |                                |                                |                                |
| Delivery Dates                                                                               |                                | May 2019                       |                                |                                                                            |                                |                                |                                       |                                                                               |                                |                                |                                |                                |
| <b>Installation Information</b>                                                              |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                               |                                |                                |                                |                                |
| <b>Method of Implementation:</b> AIT:: Installation Name: SIDEWALL AND 10KW TWT DDG HARDWARE |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                               |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                  | 43 / 2.726                     | - / -                          | 2 / 0.369                      | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                         | - / -                          | - / -                          | 0 / 0.000                      | 45 / 3.095                     |
| FY 2017                                                                                      | - / -                          | - / -                          | 1 / 0.183                      | 8 / 0.792                                                                  | 0 / 0.000                      | 8 / 0.792                      | - / -                                 | - / -                                                                         | - / -                          | - / -                          | 0 / 0.000                      | 9 / 0.975                      |
| FY 2018                                                                                      | - / -                          | - / -                          | - / -                          | 4 / 0.385                                                                  | 0 / 0.000                      | 4 / 0.385                      | - / -                                 | - / -                                                                         | - / -                          | - / -                          | 0 / 0.000                      | 4 / 0.385                      |
| FY 2019                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | 4 / 0.482                             | - / -                                                                         | - / -                          | - / -                          | 0 / 0.000                      | 4 / 0.482                      |
| FY 2020                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                                  | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                        | 43 / 2.726                     | - / -                          | 3 / 0.552                      | 12 / 1.177                                                                 | 0 / 0.000                      | 12 / 1.177                     | 4 / 0.482                             | - / -                                                                         | - / -                          | - / -                          | 0 / 0.000                      | 62 / 4.937                     |

## UNCLASSIFIED

|                                                                                              |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
|----------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------|-----------|-----------|------------------------|-----------|-------------------------------------------------------------------------------|-----------|----------------|-----------|----------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           | <b>Date:</b> February 2018 |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                       |                                       |                                       |                                       |           |           |           |                        |           | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |           |                |           |                            |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           | <b>MDAP/MAIS Code:</b> |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> DC018 - AN/SPY-1 RM&A IMPROVEMENTS                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                              |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> AIT:: Installation Name: SIDEWALL AND 10KW TWT DDG HARDWARE |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                 |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
|                                                                                              | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                             |                                       |                                       |                                       | <b>FY 2020</b>                        |           |           |           | <b>FY 2021</b>         |           |                                                                               |           | <b>FY 2022</b> |           |                            |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                              |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                  | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>              | <b>Q2</b> | <b>Q3</b>                                                                     | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                  | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                           | 43         | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | 3                                     | -                                                                          | -                                     | 8                                     | 4                                     | -                                     | -         | 2         | 2         | -                      | -         | -                                                                             | -         | -              | -         | -                          | -         | -              | -         | -         | -         | -         | 62         |
| Out                                                                                          | 43         | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | 3                                     | -                                                                          | -                                     | 8                                     | 4                                     | -                                     | -         | 2         | 2         | -                      | -         | -                                                                             | -         | -              | -         | -                          | -         | -              | -         | -         | -         | -         | 62         |
| <b>Method of Implementation:</b> AIT:: Installation Name: SIDEWALL AND 10KW TWT CG HARDWARE  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                     |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                             | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
|                                                                                              |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| Prior Years                                                                                  |            | 10 / 1.029                            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | 0 / 0.000                             | 10 / 1.029                            |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2017                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | 6 / 0.462                             | 0 / 0.000                             | 6 / 0.462                             | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | 0 / 0.000                             | 6 / 0.462                             |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2018                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2019                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 2 / 0.157                             | - / -                                 | - / -                                                                      | - / -                                 | 0 / 0.000                             | 2 / 0.157                             |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2020                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 4 / 0.323                             | - / -                                                                      | - / -                                 | 0 / 0.000                             | 4 / 0.323                             |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2021                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2022                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | 2 / 0.216                             | 0 / 0.000                             | 2 / 0.216                             |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| FY 2023                                                                                      |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| To Complete                                                                                  |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                 | - / -                                 |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| Total                                                                                        |            | 10 / 1.029                            | - / -                                 | - / -                                 | 6 / 0.462                             | 0 / 0.000                             | 6 / 0.462                             | 2 / 0.157                             | 4 / 0.323                             | - / -                                                                      | 2 / 0.216                             | 0 / 0.000                             | 24 / 2.187                            |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                 |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |           |           |           |                        |           |                                                                               |           |                |           |                            |           |                |           |           |           |           |            |
|                                                                                              | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                             |                                       |                                       |                                       | <b>FY 2020</b>                        |           |           |           | <b>FY 2021</b>         |           |                                                                               |           | <b>FY 2022</b> |           |                            |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                              |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                  | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>              | <b>Q2</b> | <b>Q3</b>                                                                     | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                  | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                           | 10         | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | 6                                                                          | -                                     | -                                     | -                                     | -                                     | -         | 2         | -         | -                      | -         | -                                                                             | 4         | -              | -         | -                          | -         | -              | -         | 2         | -         | -         | 24         |
| Out                                                                                          | 10         | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                          | -                                     | -                                     | 2                                     | -                                     | -         | 4         | -         | -                      | -         | -                                                                             | 2         | 4              | -         | -                          | -         | -              | -         | -         | 2         | -         | 24         |

## UNCLASSIFIED

|                                                                                  |                                                                            |                                                                               |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** DC018 - AN/SPY-1 RM&A IMPROVEMENTS

## Installation Information

**Method of Implementation:** AIT:: Installation Name: SIDEWALL AND 10KW TWT SHORE SITE HARDWARE

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 8 / 0.074                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 8 / 0.074                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 8 / 0.074                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 8 / 0.074                      |

## Installation Schedule

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 8   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 8   |
| Out | 8   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 8   |

**Method of Implementation:** [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY DDG HARDWARE

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | - / -                          | 2 / 2.169                      | 0 / 0.000                      | 2 / 2.169                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 2.169                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.099                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 1.099                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 2.259                      | 1 / 1.142                      | - / -                          | - / -                          | 0 / 0.000                      | 3 / 3.401                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 2.284                      | - / -                          | - / -                          | 0 / 0.000                      | 2 / 2.284                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 3.496                      | - / -                          | 0 / 0.000                      | 3 / 3.496                      |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 4 / 4.736                      | 0 / 0.000                      | 4 / 4.736                      |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 2.368                      | 2 / 2.368                      |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 2 / 2.413                      | 2 / 2.413                      |



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|                                                                                  |                                                                            |                                                                               |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10 | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** DC018 - AN/SPY-1 RM&A IMPROVEMENTS

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY DDG HARDWARE

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 54 / 68.103                    | 54 / 68.103                    |
| Total             | - / -                          | - / -                          | - / -                          | 2 / 2.169                      | 0 / 0.000                      | 2 / 2.169                      | 3 / 3.358                      | 3 / 3.426                      | 3 / 3.496                      | 4 / 4.736                      | 58 / 72.884                    | 73 / 90.069                    |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | 2  | -  | -  | 1       | 1  | 1  | -  | 1       | 2  | -  | -  | 2       | -  | 1  | -  | -       | -  | 2  | 2  | 58 | 73  |
| Out | -   | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | 1  | 1  | -  | -       | -  | 2  | 1  | -       | 2  | -  | 1  | -       | 1  | -  | 2  | 62 | 73  |

**Method of Implementation:** [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY SHORE SITE HARDWARE

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | - / -                          | 1 / 1.121                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 1.121                      |
| FY 2017           | - / -                          | - / -                          | - / -                          | 1 / 1.173                      | 0 / 0.000                      | 1 / 1.173                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 1 / 1.173                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 1 / 1.195                      | 2 / 2.537                      | - / -                          | - / -                          | 0 / 0.000                      | 3 / 3.732                      |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | - / -                          | - / -                          | 1 / 1.121                      | 1 / 1.173                      | 0 / 0.000                      | 1 / 1.173                      | 1 / 1.195                      | 2 / 2.537                      | - / -                          | - / -                          | 0 / 0.000                      | 5 / 6.026                      |

## UNCLASSIFIED

|                                                                                                                        |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
|------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------|--------------------------------|--------------------------------|---------|---|---|------------------------|---------|---|---|---|-------------------------------------------------------------------------------|----------------------------------|---|---|---------|---|---|---|----|-----|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                             |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               | <b>Date:</b> February 2018       |   |   |         |   |   |   |    |     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                       |     |                                |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million |                                |                                |         |   |   |                        |         |   |   |   | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |                                  |   |   |         |   |   |   |    |     |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   | <b>MDAP/MAIS Code:</b> |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| <b>Modification Item 1 of 1:</b> DC018 - AN/SPY-1 RM&A IMPROVEMENTS                                                    |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| <b>Installation Information</b>                                                                                        |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY SHORE SITE HARDWARE |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| <b>Installation Schedule</b>                                                                                           |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
|                                                                                                                        | PYS | FY 2017                        |                                |                                |                                | FY 2018                        |                                |                                |                                | FY 2019                        |                                                                            |                                |                                | FY 2020 |   |   |                        | FY 2021 |   |   |   | FY 2022                                                                       |                                  |   |   | FY 2023 |   |   |   | TC | Tot |
| In                                                                                                                     | -   | -                              | -                              | -                              | -                              | -                              | -                              | 1                              | -                              | -                              | -                                                                          | -                              | 1                              | -       | - | 2 | -                      | -       | - | 1 | - | -                                                                             | -                                | - | - | -       | - | - | - | 5  |     |
| Out                                                                                                                    | -   | -                              | -                              | -                              | -                              | -                              | -                              | -                              | 1                              | -                              | -                                                                          | -                              | -                              | 1       | - | - | 1                      | 1       | - | - | 1 | -                                                                             | -                                | - | - | -       | - | - | - | 5  |     |
| <b>Method of Implementation:</b> AIT:: Installation Name: MMSP-R SHORE SITE HARDWARE                                   |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| <b>Installation Cost</b>                                                                                               |     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                             | <b>To Complete</b>             | <b>Total</b>                   |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
|                                                                                                                        |     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| Prior Years                                                                                                            |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2017                                                                                                                |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2018                                                                                                                |     | - / -                          | - / -                          | - / -                          | 2 / 1.500                      | 0 / 0.000                      | 2 / 1.500                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | 0 / 0.000                      | 2 / 1.500                      |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2019                                                                                                                |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2020                                                                                                                |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2021                                                                                                                |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2022                                                                                                                |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| FY 2023                                                                                                                |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| To Complete                                                                                                            |     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| Total                                                                                                                  |     | - / -                          | - / -                          | - / -                          | 2 / 1.500                      | 0 / 0.000                      | 2 / 1.500                      | - / -                          | - / -                          | - / -                          | - / -                                                                      | 0 / 0.000                      | 2 / 1.500                      |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
| <b>Installation Schedule</b>                                                                                           |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
|                                                                                                                        | PYS | FY 2017                        |                                |                                |                                | FY 2018                        |                                |                                |                                | FY 2019                        |                                                                            |                                |                                | FY 2020 |   |   |                        | FY 2021 |   |   |   | FY 2022                                                                       |                                  |   |   | FY 2023 |   |   |   | TC | Tot |
| In                                                                                                                     | -   | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                                                                          | 1                              | -                              | 1       | - | - | -                      | -       | - | - | - | -                                                                             | -                                | - | - | -       | - | - | 2 |    |     |
| Out                                                                                                                    | -   | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                              | -                                                                          | -                              | 1                              | -       | 1 | - | -                      | -       | - | - | - | -                                                                             | -                                | - | - | -       | - | - | 2 |    |     |
| <b>Method of Implementation (Organic):</b> PACK UP KITS                                                                |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
|                                                                                                                        |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               | <b>Installation Quantity:</b> 3  |   |   |         |   |   |   |    |     |
| <b>Method of Implementation (Organic):</b> SOLID STATE SWITCH ASSEMBLY SPARES                                          |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               |                                  |   |   |         |   |   |   |    |     |
|                                                                                                                        |     |                                |                                |                                |                                |                                |                                |                                |                                |                                |                                                                            |                                |                                |         |   |   |                        |         |   |   |   |                                                                               | <b>Installation Quantity:</b> 63 |   |   |         |   |   |   |    |     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                            | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>P-1 Line Item Number / Title:</b><br>2980 / Items less than \$5 Million | <b>Modification Number / Title:</b><br>4 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                            | <b>MDAP/MAIS Code:</b>                                                        |
| <b>Modification Item 1 of 1:</b> DC018 - AN/SPY-1 RM&A IMPROVEMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                            |                                                                               |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                            |                                                                               |
| <b>Method of Implementation (Organic):</b> SOLID STATE SWITCH ASSEMBLY FINAL POWER AMPLIFIER ENV/QUAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                            | <b>Installation Quantity:</b> 1                                               |
| <p><b>Footnotes:</b></p> <p>(14) Sidewall and 10KW ORDALT kit costs vary depending on ship and radar configurations and the mix of 10KW TWT monitoring circuit and Sidewall Capacitor kits.</p> <p>(15) The change in unit costs for CG Sidewall Capacitors (SWCs) and Traveling Wave Tubes (TWTs) since PB18 in FY18 is due to realized lower costs based on actual SSSA contract pricing, which allowed accelerated procurement of six CG SWCs/TWTs from FY18 to FY17.</p> <p>(16) The change in the SPY-1 Solid State Switch Assembly (SSSA) unit cost and quantity since PB18 for FY17-19 is due to realized lower costs based on actual contract pricing. The program plans to procure 3 SSSA shore sites in FY19 at a unit cost of \$4.2M based on the actual awarded contract pricing.</p> <p>(17) SSSA Spares include initial spares and INCOs which are required for installations.</p> <p>(18) Funding is required to conduct Environmental/Qualification testing of the SPY-1 transmitter Final Power Amplifier (FPA), with installed components, as required by MILSPEC 901-D. Effort includes procurement or use of equipment (i.e., Final Power Amplifier (FPA) cabinet, High Voltage Power Supply (HVPS), cabling and ancillary equipment), test plans, engineering and test facility to support shock qualification test. Budget basis includes cost estimates of hardware and test equipment required to conduct the test. The cost for the FPA Environmental Qualification was reduced from PB18 due to the use of some existing equipment, instead of procurement of new hardware that was included in the original estimate. Due to cost avoidance from FPA Qualification, this enabled the procurement of two additional DDG SSSAs in FY18 to align with DDG Modernization schedules/availability periods.</p> <p>(19) Funding is required to procure MMSP-R equipment for two Virginia shore sites. MMSP-R contains distinct equipment sets and is not comparable to costs of other items of hardware or components.</p> <p>(20) Production support includes installation engineering services, Integrated Logistics Support (ILS) documentation updates, ORDALT instructions, engineering change proposals and Diminishing Manufacturing Sources and Material Shortages (DMSMS) analysis.</p> |                                                                            |                                                                               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy | <b>Date:</b> February 2018 |
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|                                                                                                                                                                                   |                                                                         |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 11: Shipboard Communications | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|

|                                                   |                                        |                                     |
|---------------------------------------------------|----------------------------------------|-------------------------------------|
| ID Code (A=Service Ready, B=Not Service Ready): A | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A |
|---------------------------------------------------|----------------------------------------|-------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ <i>in Millions</i> )                                                                                      | 22.687      | 9.671   | 23.695  | 45.450       | 0.000       | 45.450        | 66.478  | 71.213  | 63.190  | 65.112  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ <i>in Millions</i> )                                                                                   | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ <i>in Millions</i> )                                                                                         | 22.687      | 9.671   | 23.695  | 45.450       | 0.000       | 45.450        | 66.478  | 71.213  | 63.190  | 65.112  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ <i>in Millions</i> )                                                                                   | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ <i>in Millions</i> )                                                                                    | 22.687      | 9.671   | 23.695  | 45.450       | 0.000       | 45.450        | 66.478  | 71.213  | 63.190  | 65.112  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |            |
| Initial Spares (\$ <i>in Millions</i> )                                                                                                | -           | 0.004   | 0.567   | 0.598        | -           | 0.598         | 0.668   | 0.152   | 0.063   | 0.386   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ <i>in Thousands</i> )                                                                                            | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ <i>in Thousands</i> )                                                                                | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |

**Description:**

Funding provides for the procurement and installation of Integrated Waveform (IW) and Mobile User Objective System (MUOS) capable Digital Modular Radio (DMR) systems and IW and MUOS capable upgrade kits. DMR with IW and MUOS capable hardware is a four-channel software defined radio that provides satellite communications, Line of Sight (LOS) and High Frequency (HF), Very High Frequency (VHF) and Ultra High Frequency (UHF) communication capability to surface, submarine, and shore facilities. This variant of the DMR, including upgrade kits, provides hardware that is IW/MUOS compatible, and will allow for IW and MUOS software update when the development and integration is complete.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                    |                    |                                               |                       |                                              |                                                                         |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 11: Shipboard Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                    |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                              |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                    |                    |                                               |                       |                                              |                                                                         |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                          | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Title*</b>                                      | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                            | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 / (DN 110) DMR IW and MUOS Capable Systems (TBD) |                    |                                               |                       | - / 21.006                                   | - / 9.121                                                               | - / 9.456                                    | - / 32.154                                   | - / 0.000                                    | - / 32.154                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2 / (DN 111) DMR IW and MUOS Upgrade Kits (TBD)    |                    |                                               |                       | - / 1.681                                    | - / 0.550                                                               | - / 14.239                                   | - / 13.296                                   | - / 0.000                                    | - / 13.296                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Total Gross/Weapon System Cost</b>              |                    |                                               |                       | <b>- / 22.687</b>                            | <b>- / 9.671</b>                                                        | <b>- / 23.695</b>                            | <b>- / 45.450</b>                            | <b>- / 0.000</b>                             | <b>- / 45.450</b>                            |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                    |                                               |                       | <b>FY 2020</b>                               | <b>FY 2021</b>                                                          | <b>FY 2022</b>                               | <b>FY 2023</b>                               | <b>To Complete</b>                           | <b>Total</b>                                 |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Title*</b>                                      | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                            | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 / (DN 110) DMR IW and MUOS Capable Systems (TBD) |                    |                                               |                       | - / 51.927                                   | - / 64.154                                                              | - / 58.863                                   | - / 64.876                                   | Continuing                                   | Continuing                                   |
| P-3a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2 / (DN 111) DMR IW and MUOS Upgrade Kits (TBD)    |                    |                                               |                       | - / 14.551                                   | - / 7.059                                                               | - / 4.327                                    | - / 0.236                                    | Continuing                                   | Continuing                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Total Gross/Weapon System Cost</b>              |                    |                                               |                       | <b>- / 66.478</b>                            | <b>- / 71.213</b>                                                       | <b>- / 63.190</b>                            | <b>- / 65.112</b>                            | <b>Continuing</b>                            | <b>Continuing</b>                            |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                    |                    |                                               |                       |                                              |                                                                         |                                              |                                              |                                              |                                              |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |                    |                                               |                       |                                              |                                                                         |                                              |                                              |                                              |                                              |
| <p><b>Justification:</b><br/>         The FY 2019 funding request was reduced by \$4.1 million to account for the availability of prior year execution balances.</p> <p>The Integrated Waveform (IW) and Mobile User Objective System (MUOS) capability is available for integration into the Digital Modular Radio (DMR) hardware in FY19 now that the software development is complete. FY19 funding provides for the procurement of 24 IW/MUOS capable DMR systems and 34 IW/MUOS capable upgrade kits. This procurement quantity increase is to provide delivery of the IW/MUOS capability to the fleet at the earliest opportunity.</p> |                                                    |                    |                                               |                       |                                              |                                                                         |                                              |                                              |                                              |                                              |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                |                     |                                                                         |                      |                        |                |                | <b>Date:</b> February 2018                                                          |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / (DN 110) DMR IW and MUOS Capable Systems |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     |                                                                         |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                     |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                      | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                      | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                   | -                                                                       | -                    | -                      | -              | -              | -                                                                                   | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 21.006             | 9.121          | 9.456          | 32.154              | 0.000                                                                   | 32.154               | 51.927                 | 64.154         | 58.863         | 64.876                                                                              | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                       | -                    | -                      | -              | -              | -                                                                                   | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 21.006             | 9.121          | 9.456          | 32.154              | 0.000                                                                   | 32.154               | 51.927                 | 64.154         | 58.863         | 64.876                                                                              | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                       | -                    | -                      | -              | -              | -                                                                                   | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>21.006</b>      | <b>9.121</b>   | <b>9.456</b>   | <b>32.154</b>       | <b>0.000</b>                                                            | <b>32.154</b>        | <b>51.927</b>          | <b>64.154</b>  | <b>58.863</b>  | <b>64.876</b>                                                                       | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                |                     |                                                                         |                      |                        |                |                |                                                                                     |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                   | -                                                                       | -                    | -                      | -              | -              | -                                                                                   | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -                  | -              | -              | -                   | -                                                                       | -                    | -                      | -              | -              | -                                                                                   | -                  | -                 |
| <p><b>Description:</b></p> <p>Integrated Waveform (IW) and Mobile User Objective System (MUOS) capable Digital Modular Radio (DMR) Systems. Quantities between radios and kits may change from year to year as a result of ship availabilities and fleet priority.</p> <p>[DMR IW and MUOS System Procurement - Afloat] FY 19 is procuring twenty-four (24 QTY) Afloat units of DMR IW &amp; MUOS capable Systems. The ramp up of procurement quantities is to provide delivery of the IW/MUOS capability to the fleet at the earliest opportunity. Annual Unit Cost variances for procurements and installations are driven by system configurations. There are 3 different afloat configurations of DMR IW &amp; MUOS System (2 surface &amp; 1 subsurface) and 5 different afloat configurations of DMR IW &amp; MUOS Upgrade Kit (3 surface &amp; 2 subsurface). Additionally, shore sites do not have a standard configuration and are unique to each individual shore site. For shore, the budget reflects individual radios vice afloat configurations.</p> <p>For the DMR IW &amp; MUOS System, the configuration ranges from 1 - 3 DMR radios and requires a unique set of ancillary equipment dependent upon ship class (racks, power amplifiers &amp; antenna upgrades). For example, a CVN requires 3 DMR radios and would need 4 racks to complete installation. When comparing to a small ship such as LCS, which needs only 1 DMR radio and 2 racks to complete installation. One (1) DMR system will range in cost depending on the configuration and Economic Order Quantity Pricing relevant at time of contract award.</p> <p>All ancillary equipment is procured via separate contracts that will be subject to re-compete over the next two years. Components are provided to SPAWAR Systems Center (SSC) Pacific for integration, assembly and test which comprises the 24 month lead time.</p> <p>In FY19 DMR program plans to procure 24 DMR IW &amp; MUOS capable Systems (8 subsurface and 16 surface). Q1FY20 installations are budgeted in FY20 vice FY19.</p> <p>Twenty four (24) month Production Lead Time (PLT) for DMR System delivery due to varying PLT's from multiple sub-component vendors that are then integrated into the final product. Seven (7) month Administrative Lead Time (ALT) for DMR System procurements allows for the identification and receipt of other customer funds in order to take advantage of favorable quantity pricing.</p> |                    |                |                |                     |                                                                         |                      |                        |                |                |                                                                                     |                    |                   |

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|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                          |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>1 / (DN 110) DMR IW and MUOS Capable Systems |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                         |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                     |                                |                                |  |
| <b>Models of Systems Affected:</b> AN/USC-61(C)                                  |                                |                                |                                | <b>Modification Type:</b> TBD                                           |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604280N |                                |                                                                                     |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                     | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                      | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| <b>Modification Item 1 of 1:</b> (DN 110) DMR IW and MUOS Capable Systems        |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| 1.1.1) DMR IW and MUOS System Procurement - Shore - NonOrganic                   | 6 / 6.615                      | - / -                          | 4 / 3.040                      | - / -                                                                   | - / -                          | - / -                          | - / -                          | - / -                                  | 4 / 6.238                      | 4 / 6.425                                                                           | Continuing                     | Continuing                     |  |
| 1.1.2) DMR IW and MUOS System Procurement - Afloat - NonOrganic <sup>(1)</sup>   | 12 / 11.430                    | 3 / 4.611                      | 3 / 3.339                      | 24 / 30.036                                                             | - / -                          | 24 / 30.036                    | 27 / 43.914                    | 28 / 47.955                            | 18 / 31.408                    | 21 / 36.671                                                                         | Continuing                     | Continuing                     |  |
| <b>Subtotal: Recurring</b>                                                       | - / 18.045                     | - / 4.611                      | - / 6.379                      | - / 30.036                                                              | - / -                          | - / 30.036                     | - / 43.914                     | - / 47.955                             | - / 37.646                     | - / 43.096                                                                          | Continuing                     | Continuing                     |  |
| <b>Subtotal: (DN 110) DMR IW and MUOS Capable Systems</b>                        | 18 / 18.045                    | 3 / 4.611                      | 7 / 6.379                      | 24 / 30.036                                                             | - / -                          | 24 / 30.036                    | 27 / 43.914                    | 28 / 47.955                            | 22 / 37.646                    | 25 / 43.096                                                                         | Continuing                     | Continuing                     |  |
| <b>Subtotal: Procurement, All Modification Items</b>                             | - / 18.045                     | - / 4.611                      | - / 6.379                      | - / 30.036                                                              | - / -                          | - / 30.036                     | - / 43.914                     | - / 47.955                             | - / 37.646                     | - / 43.096                                                                          | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| 2.1) DMR IW and MUOS System Production Support                                   | - / 2.588                      | - / 0.278                      | - / 0.348                      | - / 1.802                                                               | - / -                          | - / 1.802                      | - / 2.635                      | - / 2.877                              | - / 2.259                      | - / 2.586                                                                           | Continuing                     | Continuing                     |  |
| 2.2) DMR IW and MUOS System DSA <sup>(2)</sup>                                   | - / 0.373                      | - / 0.272                      | - / 0.434                      | - / 0.316                                                               | - / -                          | - / 0.316                      | - / 1.732                      | - / 3.764                              | - / 4.619                      | - / 3.765                                                                           | Continuing                     | Continuing                     |  |
| <b>Subtotal: Support</b>                                                         | - / 2.961                      | - / 0.550                      | - / 0.782                      | - / 2.118                                                               | - / -                          | - / 2.118                      | - / 4.367                      | - / 6.641                              | - / 6.878                      | - / 6.351                                                                           | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| <b>Modification Item 1 of 1:</b> (DN 110) DMR IW and MUOS Capable Systems        | - / 0.000                      | - / 3.960                      | - / 2.295                      | - / 0.000                                                               | - / 0.000                      | - / 0.000                      | - / 3.646                      | - / 9.558                              | - / 14.339                     | - / 15.429                                                                          | Continuing                     | Continuing                     |  |
| <b>Subtotal: Installation</b>                                                    | - / 0.000                      | - / 3.960                      | - / 2.295                      | - / -                                                                   | - / -                          | - / -                          | - / 3.646                      | - / 9.558                              | - / 14.339                     | - / 15.429                                                                          | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                |                                                                                     |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>21.006</b>                  | <b>9.121</b>                   | <b>9.456</b>                   | <b>32.154</b>                                                           | <b>0.000</b>                   | <b>32.154</b>                  | <b>51.927</b>                  | <b>64.154</b>                          | <b>58.863</b>                  | <b>64.876</b>                                                                       | <b>Continuing</b>              | <b>Continuing</b>              |  |



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|-------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                        |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                              |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                  |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |           |                                |           |                                |                                             |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / (DN 110) DMR IW and MUOS Capable Systems |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                      |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> (DN 110) DMR IW and MUOS Capable Systems                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: General Dynamics                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                | Manufacturer Location: Scottsdale, Arizona  |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 7                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 24 |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                      |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                          |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                                                     |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                    |            | Dec 2017                       |           |                                |           | May 2018                       |           |                                |           | May 2019                                                                |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                    |            | Dec 2019                       |           |                                |           | May 2020                       |           |                                |           | May 2021                                                                |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: DMR IW and MUOS System Procurement - Shore |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                          |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                      |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                             | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                      |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                   |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                             | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                      |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                       |            | - / -                          |           | 6 / 1.800                      |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | 0 / 0.000                      |           | 6 / 1.800      |           |           |           |           |            |
| FY 2017                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | 4 / 1.000                      |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | 0 / 0.000                      |           | 4 / 1.000      |           |           |           |           |            |
| FY 2019                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2020                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2021                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2022                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | Continuing     |           |           |           |           |            |
| FY 2023                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | Continuing     |           |           |           |           |            |
| To Complete                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | - / -                          |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | Continuing     |           |           |           |           |            |
| Total                                                                                                             |            | - / -                          |           | 6 / 1.800                      |           | - / -                          |           | - / -                          |           | - / -                                                                   |           | - / -                          |           | 4 / 1.000                      |                                             | - / -                          |           | - / -                          |           | - / -                                                                               |           | - / -                          |           | - / -                          |           | Continuing     |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                         |           |                                |           |                                |                                             |                                |           |                                |           |                                                                                     |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                   | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                          |           |                                |           | <b>FY 2020</b>                 |                                             |                                |           | <b>FY 2021</b>                 |           |                                                                                     |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                   |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                               | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                   | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                           | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                | -          | -                              | -         | 4                              | 2         | -                              | -         | -                              | -         | -                                                                       | -         | -                              | -         | -                              | -                                           | 4                              | -         | -                              | -         | -                                                                                   | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | Cont.     | Cont.      |
| Out                                                                                                               | -          | -                              | -         | -                              | 4         | 2                              | -         | -                              | -         | -                                                                       | -         | -                              | -         | -                              | -                                           | -                              | 4         | -                              | -         | -                                                                                   | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | Cont.     | Cont.      |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                         | <b>Date:</b> February 2018                                                          |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms | <b>Modification Number / Title:</b><br>1 / (DN 110) DMR IW and MUOS Capable Systems |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** (DN 110) DMR IW and MUOS Capable Systems

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: DMR IW and MUOS System Procurement - Afloat

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | - / -                          | 6 / 2.160                      | 6 / 2.295                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 12 / 4.455                     |
| FY 2017           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 1.500                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 1.500                      |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 3 / 1.146                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 3 / 1.146                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 24 / 9.558                     | - / -                          | - / -                          | 0 / 0.000                      | 24 / 9.558                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 27 / 14.339                    | - / -                          | 0 / 0.000                      | 27 / 14.339                    |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 28 / 15.429                    | Continuing                     | Continuing                     |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total             | - / -                          | 6 / 2.160                      | 6 / 2.295                      | - / -                          | - / -                          | - / -                          | 6 / 2.646                      | 24 / 9.558                     | 27 / 14.339                    | 28 / 15.429                    | Continuing                     | Continuing                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|-------|-------|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In  | -   | -       | -  | 3  | 3  | -       | -  | 3  | 3  | -       | -  | -  | -  | 3       | -  | 2  | 1  | -       | -  | 13 | 11 | -       | -  | 13 | 14 | -       | -  | 11 | 17 | Cont. | Cont. |
| Out | -   | -       | -  | -  | 3  | 3       | -  | -  | 3  | 3       | -  | -  | -  | -       | 3  | -  | 2  | 1       | -  | -  | 15 | 9       | -  | -  | 16 | 11      | -  | -  | 13 | Cont. | Cont. |

**Footnotes:**

(1) Unit Cost variances for procurements are driven by afloat system configurations and ancillary equipment (racks, power amplifiers & antenna upgrades), which is dependent upon ship class. There are 3 different afloat configurations of DMR IW & MUOS System (2 surface & 1 subsurface) where each configurations ranges from 1 - 3 DMR radios and a unique set of ancillary equipment.

(2) DSA cost variance is due to the different DSA requirements for multiple shore, surface, and subsurface configurations.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                         |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                       |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / (DN 111) DMR IW and MUOS Upgrade Kits |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                                                                         |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                  |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                     | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                   | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                       | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.681              | 0.550          | 14.239         | 13.296                                                                  | 0.000              | 13.296               | 14.551                 | 7.059          | 4.327          | 0.236                                                                            | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                       | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.681              | 0.550          | 14.239         | 13.296                                                                  | 0.000              | 13.296               | 14.551                 | 7.059          | 4.327          | 0.236                                                                            | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                       | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1.681</b>       | <b>0.550</b>   | <b>14.239</b>  | <b>13.296</b>                                                           | <b>0.000</b>       | <b>13.296</b>        | <b>14.551</b>          | <b>7.059</b>   | <b>4.327</b>   | <b>0.236</b>                                                                     | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                         |                    |                      |                        |                |                |                                                                                  |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                       | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                       | -                  | -                    | -                      | -              | -              | -                                                                                | -                  | -                 |
| <p><b>Description:</b></p> <p>Integrated Waveform (IW) and Mobile User Objective System (MUOS) capable Digital Modular Radio (DMR) Upgrade Kits. Quantities between radios and kits may change from year to year as a result of ship availabilities and fleet priority.</p> <p>[DMR IW and MUOS Upgrade Kits Procurement] FY19 is procuring thirty-four (34 QTY) Afloat units of DMR IW &amp; MUOS capable Upgrade Kits. These procurements will provide delivery of the IW/MUOS capability to the fleet at the earliest opportunity. Annual Unit Cost variances for procurements and installations are driven by system configurations. There are 3 different afloat configurations of DMR IW &amp; MUOS System (2 surface &amp; 1 subsurface) and 5 different afloat configurations of DMR IW &amp; MUOS Upgrade Kit (3 surface &amp; 2 subsurface). Additionally, shore sites do not have a standard configuration and are unique to each individual shore site. For shore, the budget reflects individual radios vice afloat configurations.</p> <p>For the DMR IW &amp; MUOS Upgrade Kit, the configuration ranges from 1 - 3 DMR upgrade kits and requires a unique set of ancillary equipment dependent upon ship class (racks, power amplifiers &amp; antenna upgrades). One (1) DMR upgrade kit will range in cost depending on the configuration and Economic Order Quantity Pricing relevant at time of contract award.</p> <p>All ancillary equipment is procured via separate contracts that will be subject to re-compete over the next two years. Components are provided to SPAWAR Systems Center (SSC) Pacific for integration, assembly and test which comprises the 24 month lead time.</p> <p>In FY19 DMR program plans to procure 34 DMR IW &amp; MUOS capable Upgrade Kits (18 subsurface and 16 surface).</p> <p>Twenty four (24) month Production Lead Time (PLT) for DMR Upgrade Kit delivery due to varying PLT's from multiple sub-component vendors that are then integrated into the final product. Seven (7) month Administrative Lead Time (ALT) for DMR Upgrade Kit procurements allows for the identification and receipt of other customer funds in order to take advantage of favorable quantity pricing.</p> |                    |                |                |                                                                         |                    |                      |                        |                |                |                                                                                  |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                         |                                |                                |                                |                                        | <b>Date:</b> February 2018                                                       |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |                                |                                |                                |                                        | <b>Modification Number / Title:</b><br>2 / (DN 111) DMR IW and MUOS Upgrade Kits |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                         |                                |                                | <b>MDAP/MAIS Code:</b>         |                                        |                                                                                  |                                |                                |                                |  |
| <b>Models of Systems Affected:</b> AN/USC-61(C)                                  |                                |                                |                                | <b>Modification Type:</b> TBD                                           |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604280N |                                                                                  |                                |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                     | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                                                                   | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> (DN 111) DMR IW and MUOS Upgrade Kits           |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| 1.1.1) DMR IW and MUOS Upgrade Kits Procurement - NonOrganic <sup>(3)</sup>      | 11 / 1.597                     | - / -                          | 29 / 11.484                    | 34 / 12.060                                                             | - / -                          | 34 / 12.060                    | 26 / 9.026                     | 2 / 0.503                              | 2 / 0.432                                                                        | - / -                          | Continuing                     | Continuing                     |  |
| <i>Subtotal: Recurring</i>                                                       | - / 1.597                      | - / -                          | - / 11.484                     | - / 12.060                                                              | - / -                          | - / 12.060                     | - / 9.026                      | - / 0.503                              | - / 0.432                                                                        | - / -                          | Continuing                     | Continuing                     |  |
| <i>Subtotal: (DN 111) DMR IW and MUOS Upgrade Kits</i>                           | 11 / 1.597                     | - / -                          | 29 / 11.484                    | 34 / 12.060                                                             | - / -                          | 34 / 12.060                    | 26 / 9.026                     | 2 / 0.503                              | 2 / 0.432                                                                        | - / -                          | Continuing                     | Continuing                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 1.597                      | - / -                          | - / 11.484                     | - / 12.060                                                              | - / -                          | - / 12.060                     | - / 9.026                      | - / 0.503                              | - / 0.432                                                                        | - / -                          | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| 2.1) DMR IW and MUOS Upgrade Kits Production Support                             | - / 0.084                      | - / -                          | - / 0.574                      | - / 0.572                                                               | - / -                          | - / 0.572                      | - / 0.361                      | - / 0.030                              | - / 0.026                                                                        | - / -                          | Continuing                     | Continuing                     |  |
| 2.2) DMR IW and MUOS Upgrade Kits DSA                                            | - / -                          | - / 0.550                      | - / 0.883                      | - / 0.664                                                               | - / -                          | - / 0.664                      | - / 0.944                      | - / 1.045                              | - / 0.267                                                                        | - / 0.022                      | Continuing                     | Continuing                     |  |
| <i>Subtotal: Support</i>                                                         | - / 0.084                      | - / 0.550                      | - / 1.457                      | - / 1.236                                                               | - / -                          | - / 1.236                      | - / 1.305                      | - / 1.075                              | - / 0.293                                                                        | - / 0.022                      | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> (DN 111) DMR IW and MUOS Upgrade Kits           | - / 0.000                      | - / 0.000                      | - / 1.298                      | - / 0.000                                                               | - / 0.000                      | - / 0.000                      | - / 4.220                      | - / 5.481                              | - / 3.602                                                                        | - / 0.214                      | Continuing                     | Continuing                     |  |
| <i>Subtotal: Installation</i>                                                    | - / 0.000                      | - / -                          | - / 1.298                      | - / -                                                                   | - / -                          | - / -                          | - / 4.220                      | - / 5.481                              | - / 3.602                                                                        | - / 0.214                      | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                         |                                |                                |                                |                                        |                                                                                  |                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>1.681</b>                   | <b>0.550</b>                   | <b>14.239</b>                  | <b>13.296</b>                                                           | <b>0.000</b>                   | <b>13.296</b>                  | <b>14.551</b>                  | <b>7.059</b>                           | <b>4.327</b>                                                                     | <b>0.236</b>                   | <b>Continuing</b>              | <b>Continuing</b>              |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|-------------------------------------------------------------------------|----------------|--------------------------------|----------------|--------------------------------|--------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|----------------------------------------------------------------------------------|-----------|--------------------------------|----------------|--------------------------------|----------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|-------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |                                |           |                                                                         |                |                                |                |                                | <b>Date:</b> February 2018                 |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           | <b>P-1 Line Item Number / Title:</b><br>3010 / Shipboard Tactical Comms |                |                                |                |                                |                                            |                                |           |                                |                | <b>Modification Number / Title:</b><br>2 / (DN 111) DMR IW and MUOS Upgrade Kits |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                                                         |                |                                |                |                                | <b>MDAP/MAIS Code:</b>                     |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Modification Item 1 of 1:</b> (DN 111) DMR IW and MUOS Upgrade Kits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| Manufacturer Name: General Dynamics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                                                         |                |                                |                |                                | Manufacturer Location: Scottsdale, Arizona |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| Administrative Leadtime (in Months): 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                                                         |                |                                |                |                                | Production Leadtime (in Months): 24        |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | <b>FY 2017</b>                 |                                |           | <b>FY 2018</b>                                                          |                |                                | <b>FY 2019</b> |                                |                                            | <b>FY 2020</b>                 |           |                                | <b>FY 2021</b> |                                                                                  |           | <b>FY 2022</b>                 |                |                                | <b>FY 2023</b> |                                |                |                                |           |           |                |           |           |           |           |            |       |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | Dec 2017                       |                                |           | May 2018                                                                |                |                                | May 2019       |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | Dec 2019                       |                                |           | May 2020                                                                |                |                                | May 2021       |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Method of Implementation:</b> Method:: Installation Name: DMR MUOS Upgrade Kits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                                                          |                | <b>FY 2019 Base</b>            |                | <b>FY 2019 OCO</b>             |                                            | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                                                                   |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                          |                | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)                                                   |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |       |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          | - / -                          |           | 11 / 1.298                                                              |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 11 / 1.298                     |           |           |                |           |           |           |           |            |       |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |       |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | 29 / 4.220                     |                | - / -                                                                            |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 29 / 4.220                     |           |           |                |           |           |           |           |            |       |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | 34 / 5.481                                                                       |           | - / -                          |                | - / -                          |                | 0 / 0.000                      |                | 34 / 5.481                     |           |           |                |           |           |           |           |            |       |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | 26 / 3.602                     |                | - / -                          |                | 0 / 0.000                      |                | 26 / 3.602                     |           |           |                |           |           |           |           |            |       |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | - / -                          |                | 2 / 0.214                      |                | Continuing                     |                | Continuing                     |           |           |                |           |           |           |           |            |       |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | - / -                          |                | - / -                          |                | Continuing                     |                | Continuing                     |           |           |                |           |           |           |           |            |       |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | - / -                          |                | - / -                          |                | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |       |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          | - / -                          |           | - / -                                                                   |                | - / -                          |                | - / -                          |                                            | - / -                          |           | - / -                          |                | - / -                                                                            |           | - / -                          |                | - / -                          |                | Continuing                     |                | Continuing                     |           |           |                |           |           |           |           |            |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          | - / -                          |           | 11 / 1.298                                                              |                | - / -                          |                | - / -                          |                                            | - / -                          |           | 29 / 4.220                     |                | 34 / 5.481                                                                       |           | 26 / 3.602                     |                | 2 / 0.214                      |                | Continuing                     |                | Continuing                     |           |           |                |           |           |           |           |            |       |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                                                         | <b>FY 2018</b> |                                |                |                                | <b>FY 2019</b>                             |                                |           |                                | <b>FY 2020</b> |                                                                                  |           |                                | <b>FY 2021</b> |                                |                |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                                                               | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>      | <b>Q4</b>                      | <b>Q1</b>                                  | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                                        | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |       |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -          | -                              | -                              | -         | -                                                                       | -              | -                              | 6              | 5                              | -                                          | -                              | -         | -                              | -              | -                                                                                | 10        | 19                             | -              | -                              | 16             | 18                             | -              | -                              | 12        | 14        | -              | -         | 1         | 1         | Cont.     | Cont.      |       |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -          | -                              | -                              | -         | -                                                                       | -              | -                              | -              | 6                              | 5                                          | -                              | -         | -                              | -              | -                                                                                | -         | 10                             | 19             | -                              | -              | 16                             | 18             | -                              | -         | 12        | 14             | -         | -         | 1         | 1         | Cont.      | Cont. |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |
| <sup>(3)</sup> Unit Cost variances for procurements are driven by afloat upgrade kit configurations and ancillary equipment (racks, power amplifiers & antenna upgrades), which is dependent upon ship class. There are 5 different afloat configurations of DMR IW & MUOS Upgrade Kit (3 surface & 2 subsurface) where configurations range from 1 - 3 DMR upgrade kits and a unique set of ancillary equipment. Individual unit cost is not decreasing but the combination of configurations purchased per year gives the appearance of an average unit cost decrease. |            |                                |                                |           |                                                                         |                |                                |                |                                |                                            |                                |           |                                |                |                                                                                  |           |                                |                |                                |                |                                |                |                                |           |           |                |           |           |           |           |            |       |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|------------------------------------------------------------------------|---------|------------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |                                        |              |             |                                                                        |         | Date: February 2018                      |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 11: Shipboard Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation |         |                                          |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         | Program Elements for Code B Items: N/A |              |             |                                                                        |         | Other Related Program Elements: 0204163N |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                          | FY 2020 | FY 2021                                  | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -                                      | -            | -           | -                                                                      | -       | -                                        | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 506.201     | 109.191 | 103.990                                | 105.087      | 0.000       | 105.087                                                                | 106.505 | 89.351                                   | 82.346  | 84.501  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           | -       | -                                      | -            | -           | -                                                                      | -       | -                                        | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 506.201     | 109.191 | 103.990                                | 105.087      | 0.000       | 105.087                                                                | 106.505 | 89.351                                   | 82.346  | 84.501  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           | -       | -                                      | -            | -           | -                                                                      | -       | -                                        | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 506.201     | 109.191 | 103.990                                | 105.087      | 0.000       | 105.087                                                                | 106.505 | 89.351                                   | 82.346  | 84.501  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | 0.023   | 0.665                                  | 1.062        | -           | 1.062                                                                  | 1.077   | 0.814                                    | 0.128   | 0.607   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -                                      | -            | -           | -                                                                      | -       | -                                        | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | -       | -                                      | -            | -           | -                                                                      | -       | -                                        | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |
| Ship Communication Automation (52PQ): With the evolution of afloat networks programs migrating into the Consolidated Afloat Networks and Enterprise Services (CANES) program , the Ship Communications Automation budget line will continue to support Automated Digital Network System (ADNS), Legacy Network Operation Rolling Tide (ORT), Command and Control Official Information eXchange (C2OIX) (formerly Tactical Messaging), and Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) programs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |
| Automated Digital Network System (ADNS): ADNS provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting naval and coalition enclaves worldwide. ADNS utilizes Commercial Off the-Shelf/ Government Off-the-Shelf (COTS/GOTS) equipment and network protocols as specified by the joint technical architecture. ADNS Increment (INC) I provides ship to shore Internet Protocol (IP) connectivity, separation of enclaves, reuse of unused enclave bandwidth, and ship to tactical shore IP connectivity. ADNS INC II provides capabilities of network to Satellite Communications, Load Balancing, Radio Frequency (RF) restoral, and Quality of Service (QoS) to include application prioritization, Traffic Management, compression and enhancements designed to maximize use of "effective" available bandwidth for surface, shore, and airborne platforms. ADNS INC III combines all Navy Tactical Voice, secure Communications Interoperability Protocol Inter-Working Function, Video, data requirements into a converged IP data stream, and Assured Command and Control (C2) capabilities. This includes Secure Communication Interoperability- Protocol Interworking Function (SCIP-IWF) for secure telephony over IP. In addition, the INC III architecture will incorporate an IPv4/IPv6 dual stack and a Cipher-Text security architecture to align to the Global Information Grid (GIG) in order to mesh Navy tactical surface, subsurface, airborne platforms, and Aegis Ashore sites into a single IP environment with gateway functions to joint and coalition networks. Technical Insertions are minor upgrades to existing system hardware and software baseline that are required to maximize C4ISR capability and interface functionality between ADNS and applicable programs. |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |
| Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT): ORT is a Navy-wide cyber remediation effort to secure government databases and improve the overall security protocols for Navy computer networks. Specifically, Legacy Network Cyber Resiliency/ORT will fund planned legacy network upgrades and mitigate security vulnerabilities on the highest End of Life (EOL) platforms that are not targeted to be replaced by a CANES system. These upgrades will mitigate known targeted cyber vulnerabilities and include eradication of old Windows Operating Systems, critical EOL firewalls and routers and improved anti-malware solutions. Legacy Network Cyber Resiliency/ORT will improve the networks ability to detect known and unknown vulnerabilities and attacks by upgrading sensor and monitoring technologies and accelerating post-attack containment and recovery.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |
| Command and Control Official Information eXchange (C2OIX): C2OIX consolidates the Tactical Messaging and Defense Messaging System (DMS) programs and manages the Official Information Exchange (OIX) of organizational record message traffic, providing sustainment support and modernization for all afloat and ashore platforms. The modernization effort within C2OIX for afloat platforms replaces older Naval Modular Automated Communication System (NAVMACS) that lacked adherence to current cyber security requirements. It also automates and increases the speed and efficiency of handling organizational message traffic aboard ships and submarines, as well as replaces ten NAVMACS surface shipboard variants distributed across United States Navy (USN), Military Sealift Command (MSC) and United States                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |                                                                        |         |                                          |         |         |             |            |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        | Date: February 2018                                                    |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 11: Shipboard Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Program Elements for Code B Items: N/A | Other Related Program Elements: 0204163N                               |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |                                                                        |
| <p>Coast Guard (USCG) ships with a single shipboard variant. The ashore component of C2OIX Project is the IP-based C2OIX Shore Gateway system. C2OIX will virtualize all Government Official Information Exchange System (GOES) software suites on shore gateway UNCLASSIFIED, SECRET and TOP SECRET message enclaves and provide an integrated Cross Domain Solution (CDS) at the two Naval Computer Telecommunication Area Master Stations (NCTAMS PACIFIC and NCTAMS ATLANTIC). C2OIX shore and afloat will satisfy Navy record messaging requirements and implement products that are developed with an open system architecture.</p> <p>Shore Tactical Assured Command and Control (STACC) is the Navy's Program of Record to consolidate and modernize the ashore wide area network services infrastructure supporting afloat forces and shore commands assigned with tactical, operational, and strategic missions. STACC directly supports afloat legacy networks (e.g., ISNS), Consolidated Afloat Networks and Enterprise Services (CANES) and Automated Digital Network System (ADNS) and all associated systems installed on those networks by providing direct interfaces to the Defense Information Systems Network (DISN), thus enabling interoperability within Navy tactical forces and with combatant commands, joint forces, coalition/mission partners, and other Services/Agencies. STACC fields capability at five regions, covering over 40 facilities in both CONUS and OCONUS locations. STACC supports over 410 surface and subsurface platforms. The STACC portfolio includes wide area terrestrial transport services, core network services, network monitoring and management, and is comprised of hardware, software, computing/processing, network, and storage technologies. These services span several security classification levels to include unclassified, secret, Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M), Sensitive Compartmented Information (SCI), and Virtual Secure Enclave (VSE). VSE is a new security enclave designed to support highly contested cyber operations providing proactive network defense.</p> <p>The network management service provides users with access to near real time situational awareness of the health and status of the network. STACC enables operators the ability to understand what is and is not normal on the network and provides a pre-emptive cyberspace capability to fight and win in a cyber-denied information environment. The STACC's network monitoring and management system is also a critical and foundational data set provider to the Navy's Cyber Situational Awareness (NCSA) program/system which performs further processing, correlation, and impact assessment. The STACC network core service offerings provide afloat platforms reach back services such as email, chat, Domain Name System (DNS), patching and C2 application hosting services for programs that need to be in a tactical environment. The hosting services include Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) offerings.</p> <p>STACC's systems are located in 5 regions: 1)Eastern Pacific supporting Commander Pacific Fleet and Commander Third Fleet (Naval Computer &amp; Telecommunications Area Master Station Pacific (NCTAMS PAC) and Naval Computer &amp; Telecommunications Station San Diego (NCTS San Diego); 2) Western Pacific supporting Commander Seventh Fleet; 3) Indian Ocean supporting Commander Fifth (NCTS BAHRAIN); 4) European supporting Commander Sixth Fleet (NCTS NAPLES); and 5) Atlantic supporting US Fleet Forces Command, Commander Tenth Fleet and Commander Fourth Fleet (NCTAMS LANT); to include Joint and Coalition Partners within each region. STACC systems will also be procured in support of NCTAMS LANT's new integrated Communications Center.</p> |                                        |                                                                        |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy | <b>Date:</b> February 2018 |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 11: Shipboard Communications | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |
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|                                                          |                                               |                                                 |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0204163N |
|----------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Exhibits Schedule |                                                                                                  |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|--------------------------------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                                           | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Ship Communications Automation                                                               | P-5a        |       |                | - / 5.500                             | - / 2.900                             | - / 2.900                             | - / 2.900                             | - / 0.000                             | - / 2.900                             |
| P-3a              | 1 / PQ065 Command and Control Official Information eXchange (C2OIX) (TBD)                        |             |       |                | - / 126.348                           | - / 3.551                             | - / 4.048                             | - / 9.323                             | - / 0.000                             | - / 9.323                             |
| P-3a              | 2 / PQ069 Automated Digital Network System (ADNS) - Afloat (TBD)                                 |             |       |                | - / 45.106                            | - / 41.291                            | - / 49.436                            | - / 63.409                            | - / 0.000                             | - / 63.409                            |
| P-3a              | 3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) (TBD) |             |       |                | - / 283.073                           | - / 25.293                            | - / 37.512                            | - / 29.455                            | - / 0.000                             | - / 29.455                            |
| P-3a              | 4 / PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) (TBD)                     |             |       |                | - / 46.174                            | - / 36.156                            | - / 10.094                            | - / 0.000                             | - / 0.000                             | - / 0.000                             |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                                            |             |       |                | <b>- / 506.201</b>                    | <b>- / 109.191</b>                    | <b>- / 103.990</b>                    | <b>- / 105.087</b>                    | <b>- / 0.000</b>                      | <b>- / 105.087</b>                    |

| Exhibits Schedule |                                                                                                  |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
|-------------------|--------------------------------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                                           | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Ship Communications Automation                                                               | P-5a        |       |                | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| P-3a              | 1 / PQ065 Command and Control Official Information eXchange (C2OIX) (TBD)                        |             |       |                | - / 8.590                             | - / 4.399                             | - / 4.457                             | - / 4.572                             | Continuing                            | Continuing                            |
| P-3a              | 2 / PQ069 Automated Digital Network System (ADNS) - Afloat (TBD)                                 |             |       |                | - / 61.426                            | - / 59.995                            | - / 57.846                            | - / 59.547                            | Continuing                            | Continuing                            |
| P-3a              | 3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) (TBD) |             |       |                | - / 31.189                            | - / 20.857                            | - / 17.143                            | - / 17.482                            | Continuing                            | Continuing                            |
| P-3a              | 4 / PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) (TBD)                     |             |       |                | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 92.424                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                                            |             |       |                | <b>- / 106.505</b>                    | <b>- / 89.351</b>                     | <b>- / 82.346</b>                     | <b>- / 84.501</b>                     | <b>Continuing</b>                     | <b>Continuing</b>                     |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

The FY 2019 funding request was reduced by (\$1.644) million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

In FY19, ADNS begins integration of Assured Command and Control capabilities to meet fleet requirements as well as fielding at Aegis Ashore sites. In FY19, ADNS funds are for the procurement of (33) INC III Afloat units, (49) INC III Afloat Technical Insertion units, (4) Ashore INC I/INC II units, and (6) Ashore INC III units (to include one Aegis Ashore system), with integration, and associated costs for pre-installation design. In addition, the FY19 ADNS investment will fund installation of (28) INC III Afloat units, (49) INC III Afloat Technical Insertion units, (4) Ashore INC I/INC II units, and (6) Ashore INC III units. The increase in ADNS technical insertion units is driven by the need to field additional ADNS capabilities required by other programs.

FY19 C2OIX will procure(63), install & integrate(37) C2OIX Afloat (NAVMACS) units. Associated costs for pre-installation design to replace old legacy equipment onboard ships and submarines. FY19 and FY20 increase is to modernize NAVMACS components on 72 legacy systems to eliminate a legacy cross domain solution mandated by the DoD Information Security risk management Committee (ISRMC). FY19-FY23 Fluctuation in installation costs is due to cost decrease when C2OIX installations are combined with CANES installations.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               | <b>Date:</b> February 2018                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 11: Shipboard Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0204163N                               |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |                                                                               |
| <p>FY19 funding for STACC to engineer, integrate, procure, and install hardware and software to: transition legacy serial transport to an IP environment; expand IP services (Unclassified, SECRET, CENTRIXS-M NOC, SCI NOC and VSE ASP) to include application hosting services and expand storage capability; and enhance Network Operations monitoring and management, ORT cyber remediation solutions to detect, deter and mitigate network threats and for Assured Command and Control to support terrestrial communications and routing changes. STACC modernization is required at the five major regions, including the NCTAMS LANT new integrated communications facility (MILCON P-913).</p> |                                               |                                                                               |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                   |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               | Date: February 2018                                                |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                                                                                                                  |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Ship Communications Automation |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                           |                     |               |                      |                     |               |                                                                        |                     |               | MDAP/MAIS Code:      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                                                                           |                     |               |                      | Prior Years         |               | FY 2017                                                                |                     | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO                                                        |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                |                     |               |                      | -                   |               | -                                                                      |                     | -             |                      | -                   |               | -                                                                  |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                           |                     |               |                      | 5.500               |               | 2.900                                                                  |                     | 2.900         |                      | 2.900               |               | 0.000                                                              |                     | 2.900         |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                        |                     |               |                      | -                   |               | -                                                                      |                     | -             |                      | -                   |               | -                                                                  |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                              |                     |               |                      | 5.500               |               | 2.900                                                                  |                     | 2.900         |                      | 2.900               |               | 0.000                                                              |                     | 2.900         |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                        |                     |               |                      | -                   |               | -                                                                      |                     | -             |                      | -                   |               | -                                                                  |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                                                                         |                     |               |                      | 5.500               |               | 2.900                                                                  |                     | 2.900         |                      | 2.900               |               | 0.000                                                              |                     | 2.900         |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                     |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                     |                     |               |                      | -                   |               | -                                                                      |                     | -             |                      | -                   |               | -                                                                  |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                                                                     |                     |               |                      | -                   |               | -                                                                      |                     | -             |                      | -                   |               | -                                                                  |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                             |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                                                                              | Prior Years         |               |                      | FY 2017             |               |                                                                        | FY 2018             |               |                      | FY 2019 Base        |               |                                                                    | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                                                            | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                               | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware Cost                                                                                                                                                                              |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                                                                             |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| 1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II <sup>(†)</sup> (1)                                                                                                      | 100.000             | 4             | 0.400                | 100.000             | 4             | 0.400                                                                  | 100.000             | 4             | 0.400                | 100.000             | 4             | 0.400                                                              | -                   | -             | 0.000                | 100.000             | 4             | 0.400                |
| 1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III <sup>(†)</sup> (2)                                                                                                       | 425.000             | 12            | 5.100                | 416.667             | 6             | 2.500                                                                  | 416.667             | 6             | 2.500                | 416.667             | 6             | 2.500                                                              | -                   | -             | 0.000                | 416.667             | 6             | 2.500                |
| Subtotal: Recurring Cost                                                                                                                                                                   | -                   | -             | 5.500                | -                   | -             | 2.900                                                                  | -                   | -             | 2.900                | -                   | -             | 2.900                                                              | -                   | -             | 0.000                | -                   | -             | 2.900                |
| Subtotal: Hardware Cost                                                                                                                                                                    | -                   | -             | 5.500                | -                   | -             | 2.900                                                                  | -                   | -             | 2.900                | -                   | -             | 2.900                                                              | -                   | -             | 0.000                | -                   | -             | 2.900                |
| Gross/Weapon System Cost                                                                                                                                                                   | -                   | -             | 5.500                | -                   | -             | 2.900                                                                  | -                   | -             | 2.900                | -                   | -             | 2.900                                                              | -                   | -             | 0.000                | -                   | -             | 2.900                |
| Remarks:<br>ADNS Ashore/ Network Operations Center (NOC)                                                                                                                                   |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| (†) indicates the presence of a P-5a                                                                                                                                                       |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| Footnotes:                                                                                                                                                                                 |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |
| (1) Tech refresh is required to field hardware to address End of Life issues at (4) ADNS Network Operation Centers (NOC): NCTS Bahrain, NCTAMS EURCENT, NCTAMS LANT, and NCTAMS PAC sites. |                     |               |                      |                     |               |                                                                        |                     |               |                      |                     |               |                                                                    |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                        | Date: February 2018                                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation | Item Number / Title [DODIC]:<br>1 / Ship Communications Automation |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                        | MDAP/MAIS Code:                                                    |
| <p>(2) - Prior Year Procurement quantity (6) were procured under BLI 2915. The associated installation in FY16 is funded under BLI 3050. -FY17-23 procurement quantities represent minor tech refreshes at 6 sites that include 2 Broadcast Control Authority and 4 NOCs (NCTS Bahrain, NCTAMS EURCENT, NCTAMS LANT, and NCTAMS PAC). - INC III Ashore units require 3 months integration, assembly, testing and shipping after delivery, prior to installation start. Installs do not begin until 10 months after procurement contract award (7 months production lead time + 3 months integration).</p> |                                                                        |                                                                    |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy              |             |      |                                                                        |                                      |                 |               |                              | Date: February 2018                                                |                            |                        |                               |                   |
|---------------------------------------------------------------------------|-------------|------|------------------------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|--------------------------------------------------------------------|----------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11 |             |      | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation |                                      |                 |               |                              | Item Number / Title [DODIC]:<br>1 / Ship Communications Automation |                            |                        |                               |                   |
| Cost Elements                                                             | O<br>C<br>O | FY   | Contractor and Location                                                | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br><i>(Each)</i>                                               | Unit Cost<br><i>(\$ K)</i> | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II        |             | 2017 | SSC PAC / San Diego, CA                                                | C / IDIQ                             | SPAWAR          | Nov 2016      | Mar 2017                     | 4                                                                  | 100.000                    | Y                      |                               |                   |
| 1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II        |             | 2018 | SSC PAC / San Diego, CA                                                | C / IDIQ                             | SPAWAR          | Nov 2017      | Mar 2018                     | 4                                                                  | 100.000                    | Y                      |                               |                   |
| 1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II        |             | 2019 | SSC PAC / San Diego, CA                                                | C / IDIQ                             | SPAWAR          | Nov 2018      | Mar 2019                     | 4                                                                  | 100.000                    | Y                      |                               |                   |
| 1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III         |             | 2017 | SSC PAC / San Diego, CA                                                | C / IDIQ                             | SPAWAR          | Nov 2016      | Sep 2017                     | 6                                                                  | 416.667                    | Y                      |                               |                   |
| 1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III         |             | 2018 | SSC PAC / San Diego, CA                                                | C / IDIQ                             | SPAWAR          | Nov 2017      | Sep 2018                     | 6                                                                  | 416.667                    | Y                      |                               |                   |
| 1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III         |             | 2019 | SSC PAC / San Diego, CA                                                | C / IDIQ                             | SPAWAR          | Nov 2018      | Sep 2019                     | 6                                                                  | 416.667                    | Y                      |                               |                   |
|                                                                           |             |      |                                                                        |                                      |                 |               |                              |                                                                    |                            |                        |                               |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                               |  | <b>Date:</b> February 2018 |  |                                                                                                            |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |  |                            |  | <b>Modification Number / Title:</b><br>1 / PQ065 Command and Control Official Information eXchange (C2OIX) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 126.348     | 3.551   | 4.048   | 9.323        | 0.000       | 9.323           | 8.590   | 4.399   | 4.457   | 4.572   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 126.348     | 3.551   | 4.048   | 9.323        | 0.000       | 9.323           | 8.590   | 4.399   | 4.457   | 4.572   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 126.348     | 3.551   | 4.048   | 9.323        | 0.000       | 9.323           | 8.590   | 4.399   | 4.457   | 4.572   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

Command and Control Official Information eXchange (C2OIX) (formerly Tactical Messaging): C2OIX consolidates the Tactical Messaging and Defense Messaging System (DMS) programs and manages the Official Information Exchange (OIX) of organizational record message traffic, providing sustainment support and modernization for all afloat and ashore platforms. The modernization effort within C2OIX for afloat platforms replaces older Naval Modular Automated Communication System (NAVMACS) that lacked adherence to current cyber security requirements. It also automates and increases the speed and efficiency of handling organizational message traffic aboard ships and submarines, as well as replaces ten NAVMACS surface shipboard variants distributed across United States Navy (USN), Military Sealift Command (MSC) and United States Coast Guard (USCG) ships with a single shipboard variant. The ashore component of C2OIX Project is the IP-based C2OIX Shore Gateway system. C2OIX will virtualize all Government Official Information Exchange System (GOES) software suites on shore gateway UNCLASSIFIED, SECRET and TOP SECRET message enclaves and provide an integrated Cross Domain Solution (CDS) at the two Naval Computer Telecommunication Area Master Stations (NCTAMS PACIFIC and NCTAMS ATLANTIC). C2OIX shore and afloat will satisfy Navy record messaging requirements and implement products that are developed with an open system architecture.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                       |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                                 |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                 |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>1 / PQ065 Command and Control Official Information eXchange (C2OIX) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                          |                                |                                |                                |                                |                                                                               |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                                            |                                |                                |  |
| <b>Models of Systems Affected:</b> Tactical Messaging / C2OIX / NAVMACS                          |                                |                                |                                |                                | <b>Modification Type:</b> TBD                                                 |                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>                                                                              |                                |                                |  |
| <b>Financial Plan</b>                                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                            | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                             | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                               |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ065 Command and Control Official Information eXchange (C2OIX) |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| B Kits                                                                                           |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| Recurring                                                                                        |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| 1.1.1) Consolidated Prior Year Requirements - Organic                                            | 237 / 97.338                   | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                      | - / -                          | 237 / 97.338                   |  |
| 1.1.2) C2OIX Equipment (Afloat) - NonOrganic                                                     | 39 / 8.893                     | 10 / 2.088                     | 11 / 1.958                     | 63 / 4.537                     | - / -                                                                         | 63 / 4.537                     | 34 / 3.416                     | 10 / 1.789                     | 9 / 1.046                      | 10 / 1.530                                                                                                 | Continuing                     | Continuing                     |  |
| 1.1.3) C2OIX Equipment (Ashore) - NonOrganic                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | 2 / 0.380                      | - / -                                                                                                      | - / -                          | 2 / 0.380                      |  |
| <b>Subtotal: Recurring</b>                                                                       | - / 106.231                    | - / 2.088                      | - / 1.958                      | - / 4.537                      | - / -                                                                         | - / 4.537                      | - / 3.416                      | - / 1.789                      | - / 1.426                      | - / 1.530                                                                                                  | Continuing                     | Continuing                     |  |
| <b>Subtotal: PQ065 Command and Control Official Information eXchange (C2OIX)</b>                 | 276 / 106.231                  | 10 / 2.088                     | 11 / 1.958                     | 63 / 4.537                     | - / -                                                                         | 63 / 4.537                     | 34 / 3.416                     | 10 / 1.789                     | 11 / 1.426                     | 10 / 1.530                                                                                                 | Continuing                     | Continuing                     |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                             | - / 106.231                    | - / 2.088                      | - / 1.958                      | - / 4.537                      | - / -                                                                         | - / 4.537                      | - / 3.416                      | - / 1.789                      | - / 1.426                      | - / 1.530                                                                                                  | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                                          |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| 2.1) Production Support                                                                          | - / 8.548                      | - / 0.065                      | - / 0.045                      | - / 0.193                      | - / 0.000                                                                     | - / 0.193                      | - / 0.197                      | - / 0.108                      | - / 0.100                      | - / 0.101                                                                                                  | Continuing                     | Continuing                     |  |
| 2.2) DSA <sup>(3)</sup>                                                                          | - / 7.290                      | - / 0.285                      | - / 0.545                      | - / 0.971                      | - / 0.000                                                                     | - / 0.971                      | - / 0.412                      | - / 0.974                      | - / 0.238                      | - / 0.688                                                                                                  | Continuing                     | Continuing                     |  |
| <b>Subtotal: Support</b>                                                                         | - / 15.838                     | - / 0.350                      | - / 0.590                      | - / 1.164                      | - / -                                                                         | - / 1.164                      | - / 0.609                      | - / 1.082                      | - / 0.338                      | - / 0.789                                                                                                  | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                                              |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ065 Command and Control Official Information eXchange (C2OIX) | - / 4.279                      | - / 1.113                      | - / 1.500                      | - / 3.622                      | - / 0.000                                                                     | - / 3.622                      | - / 4.565                      | - / 1.528                      | - / 2.693                      | - / 2.253                                                                                                  | Continuing                     | Continuing                     |  |
| <b>Subtotal: Installation</b>                                                                    | - / 4.279                      | - / 1.113                      | - / 1.500                      | - / 3.622                      | - / -                                                                         | - / 3.622                      | - / 4.565                      | - / 1.528                      | - / 2.693                      | - / 2.253                                                                                                  | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                                     |                                |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                                                                                            |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                         | <b>126.348</b>                 | <b>3.551</b>                   | <b>4.048</b>                   | <b>9.323</b>                   | <b>0.000</b>                                                                  | <b>9.323</b>                   | <b>8.590</b>                   | <b>4.399</b>                   | <b>4.457</b>                   | <b>4.572</b>                                                                                               | <b>Continuing</b>              | <b>Continuing</b>              |  |

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|-------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|------------|--------------------------------|----------------|--------------------------------|------------|--------------------------------|-------------------------------------------------------------------------------|--------------------------------|------------|--------------------------------|----------------|------------------------------------|------------|--------------------------------|----------------|--------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|------------|-----------|----------------|-----------|-----------|-----------|-----------------------------------|------------|--|--|--|--|--|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                            |            |                                |                                |            |                                |                |                                |            |                                | <b>Date:</b> February 2018                                                    |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                      |            |                                |                                |            |                                |                |                                |            |                                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                                |            |                                |                |                                    |            |                                |                |                                | <b>Modification Number / Title:</b><br>1 / PQ065 Command and Control Official Information eXchange (C2OIX) |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                               |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                | <b>MDAP/MAIS Code:</b>             |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Modification Item 1 of 1:</b> PQ065 Command and Control Official Information eXchange (C2OIX)      |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Manufacturer Information</b>                                                                       |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| Manufacturer Name: General Dynamics                                                                   |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                | Manufacturer Location: Taunton, MA |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| Administrative Leadtime (in Months): 2                                                                |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                | Production Leadtime (in Months): 1 |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Dates</b>                                                                                          |            | <b>FY 2017</b>                 |                                |            |                                | <b>FY 2018</b> |                                |            |                                | <b>FY 2019</b>                                                                |                                |            |                                | <b>FY 2020</b> |                                    |            |                                | <b>FY 2021</b> |                                |                                                                                                            |                                | <b>FY 2022</b> |                                |            |           | <b>FY 2023</b> |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| Contract Dates                                                                                        |            | Dec 2016                       |                                |            |                                | Dec 2017       |                                |            |                                | Dec 2018                                                                      |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| Delivery Dates                                                                                        |            | Jan 2017                       |                                |            |                                | Jan 2018       |                                |            |                                | Jan 2019                                                                      |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Installation Information</b>                                                                       |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Method of Implementation:</b> Method:: Installation Name: Installation of Equipment - C2OIX Afloat |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Installation Cost</b>                                                                              |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |            | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |            | <b>FY 2019 OCO</b>             |                                                                               | <b>FY 2019 Total</b>           |            | <b>FY 2020</b>                 |                | <b>FY 2021</b>                     |            | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                                                            | <b>To Complete</b>             |                | <b>Total</b>                   |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
|                                                                                                       |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |            | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |            | Qty (Each) / Total Cost (\$ M) |                                                                               | Qty (Each) / Total Cost (\$ M) |            | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)     |            | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                                                            | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| Prior Years                                                                                           |            | 39 / 4.279                     |                                | - / -      |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | - / -      |                                | - / -          |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 39 / 4.279 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2017                                                                                               |            | - / -                          |                                | 10 / 1.113 |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | - / -      |                                | - / -          |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 10 / 1.113 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2018                                                                                               |            | - / -                          |                                | - / -      |                                | 11 / 1.500     |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | - / -      |                                | - / -          |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 11 / 1.500 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2019                                                                                               |            | - / -                          |                                | - / -      |                                | - / -          |                                | 37 / 3.622 |                                | 0 / 0.000                                                                     |                                | 37 / 3.622 |                                | 26 / 1.978     |                                    | - / -      |                                | - / -          |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 63 / 5.600 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2020                                                                                               |            | - / -                          |                                | - / -      |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | 34 / 2.587     |                                    | - / -      |                                | - / -          |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 34 / 2.587 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2021                                                                                               |            | - / -                          |                                | - / -      |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | 10 / 1.528 |                                | - / -          |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 10 / 1.528 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2022                                                                                               |            | - / -                          |                                | - / -      |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | - / -      |                                | 11 / 2.693     |                                | - / -                                                                                                      |                                | 0 / 0.000      |                                | 11 / 2.693 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| FY 2023                                                                                               |            | - / -                          |                                | - / -      |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | - / -      |                                | - / -          |                                | 10 / 2.253                                                                                                 |                                | 0 / 0.000      |                                | 10 / 2.253 |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| To Complete                                                                                           |            | - / -                          |                                | - / -      |                                | - / -          |                                | - / -      |                                | - / -                                                                         |                                | - / -      |                                | - / -          |                                    | - / -      |                                | - / -          |                                | - / -                                                                                                      |                                | Continuing     |                                | Continuing |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| Total                                                                                                 |            | 39 / 4.279                     |                                | 10 / 1.113 |                                | 11 / 1.500     |                                | 37 / 3.622 |                                | 0 / 0.000                                                                     |                                | 37 / 3.622 |                                | 60 / 4.565     |                                    | 10 / 1.528 |                                | 11 / 2.693     |                                | 10 / 2.253                                                                                                 |                                | Continuing     |                                | Continuing |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
| <b>Installation Schedule</b>                                                                          |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |
|                                                                                                       | <b>PYS</b> | <b>FY 2017</b>                 |                                |            |                                | <b>FY 2018</b> |                                |            |                                | <b>FY 2019</b>                                                                |                                |            |                                | <b>FY 2020</b> |                                    |            |                                | <b>FY 2021</b> |                                |                                                                                                            |                                | <b>FY 2022</b> |                                |            |           | <b>FY 2023</b> |           |           |           | <b>TC</b>                         | <b>Tot</b> |  |  |  |  |  |  |  |  |
|                                                                                                       |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>  | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>  | <b>Q4</b>                      | <b>Q1</b>                                                                     | <b>Q2</b>                      | <b>Q3</b>  | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                          | <b>Q3</b>  | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                                                                  | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>  | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |                                   |            |  |  |  |  |  |  |  |  |
| In                                                                                                    | 38         | 1                              | 4                              | 1          | 3                              | 2              | 3                              | 3          | 3                              | 2                                                                             | 5                              | 15         | 17                             | -              | 24                                 | 19         | 17                             | -              | 3                              | 4                                                                                                          | 3                              | -              | 3                              | 3          | 5         | -              | 3         | 3         | 4         | Cont.                             | Cont.      |  |  |  |  |  |  |  |  |
| Out                                                                                                   | 38         | 1                              | 4                              | 1          | 3                              | 2              | 3                              | 3          | 3                              | 2                                                                             | 5                              | 15         | 17                             | -              | 24                                 | 19         | 17                             | -              | 3                              | 4                                                                                                          | 3                              | -              | 3                              | 3          | 5         | -              | 3         | 3         | 4         | Cont.                             | Cont.      |  |  |  |  |  |  |  |  |
| <b>Method of Implementation (Organic):</b> Consolidated Prior Year Requirements - Not Installed       |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           | <b>Installation Quantity:</b> 237 |            |  |  |  |  |  |  |  |  |
| <b>Footnotes:</b>                                                                                     |            |                                |                                |            |                                |                |                                |            |                                |                                                                               |                                |            |                                |                |                                    |            |                                |                |                                |                                                                                                            |                                |                |                                |            |           |                |           |           |           |                                   |            |  |  |  |  |  |  |  |  |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                         |                                                                               | <b>Date:</b> February 2018                                                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                   | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation | <b>Modification Number / Title:</b><br>1 / PQ065 Command and Control Official Information eXchange (C2OIX) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                            |                                                                               | <b>MDAP/MAIS Code:</b>                                                                                     |
| <p><sup>(3)</sup> C2OIX budgets DSA when installations are not combined with CANES. CANES budgets for DSA costs for combined C2OIX / CANES installations. In FY19 the majority of installations are C2OIX only installations resulting in an increased DSA budget requirement.</p> |                                                                               |                                                                                                            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|-------------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|---------------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                     |                                                                               |                      |                        |                |                | <b>Date:</b> February 2018                                                                        |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / PQ069 Automated Digital Network System (ADNS) - Afloat |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     |                                                                               |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                   |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                            | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                    | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -                  | -              | -              | -                   | -                                                                             | -                    | -                      | -              | -              | -                                                                                                 | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 45.106             | 41.291         | 49.436         | 63.409              | 0.000                                                                         | 63.409               | 61.426                 | 59.995         | 57.846         | 59.547                                                                                            | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                             | -                    | -                      | -              | -              | -                                                                                                 | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 45.106             | 41.291         | 49.436         | 63.409              | 0.000                                                                         | 63.409               | 61.426                 | 59.995         | 57.846         | 59.547                                                                                            | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                   | -                                                                             | -                    | -                      | -              | -              | -                                                                                                 | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>45.106</b>      | <b>41.291</b>  | <b>49.436</b>  | <b>63.409</b>       | <b>0.000</b>                                                                  | <b>63.409</b>        | <b>61.426</b>          | <b>59.995</b>  | <b>57.846</b>  | <b>59.547</b>                                                                                     | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                |                     |                                                                               |                      |                        |                |                |                                                                                                   |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                             | -                    | -                      | -              | -              | -                                                                                                 | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                             | -                    | -                      | -              | -              | -                                                                                                 | -                  | -                 |
| <p><b>Description:</b></p> <p>ADNS is the gateway to the tactical Wide Area Network (WAN) afloat for Internet Protocol (IP) network operations, supporting information dissemination and external connectivity. ADNS allows services and applications to interconnect to the Defense Information Systems Network (DISN) ashore via multiple Radio Frequency (RF) resources and pier connectivity.</p> <p>[Automated Digital Network System (ADNS) - Afloat- INC III] ADNS is the gateway to tactical Wide Area Network (WAN) afloat for Internet Protocol (IP) network operations, supporting information dissemination and external connectivity. ADNS provides the only Quality and Class of Service (QoS/CoS) routing for Multi-Service Voice, Video, and Data domains across available Radio Frequency (RF) paths.</p> |                    |                |                |                     |                                                                               |                      |                        |                |                |                                                                                                   |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                        |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11             |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>2 / PQ069 Automated Digital Network System (ADNS) - Afloat |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |                                |                                |                                |                                                                               |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                                   |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                                      |                                |                                |                                | <b>Modification Type:</b> TBD                                                 |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0204163N |                                |                                                                                                   |                                |                                |  |
| <b>Financial Plan</b>                                                                        | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                           | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                    | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                           |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ069 Automated Digital Network System (ADNS) - Afloat      |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| B Kits                                                                                       |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| Recurring                                                                                    |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| 1.1.1) Automated Digital Network System (ADNS) - Afloat- INC III - NonOrganic <sup>(4)</sup> | 46 / 26.119                    | 21 / 24.548                    | 28 / 34.983                    | 33 / 39.988                                                                   | - / -                          | 33 / 39.988                    | 40 / 40.594                    | 35 / 35.736                            | 38 / 38.240                    | 39 / 39.808                                                                                       | Continuing                     | Continuing                     |  |
| 1.1.2) ADNS Tech Insertions - NonOrganic <sup>(5)</sup>                                      | 12 / 1.750                     | 36 / 4.983                     | 26 / 3.600                     | 49 / 6.911                                                                    | - / -                          | 49 / 6.911                     | 33 / 4.381                     | 43 / 5.532                             | 17 / 2.362                     | 14 / 1.955                                                                                        | Continuing                     | Continuing                     |  |
| <b>Subtotal: Recurring</b>                                                                   | - / 27.869                     | - / 29.531                     | - / 38.583                     | - / 46.899                                                                    | - / -                          | - / 46.899                     | - / 44.975                     | - / 41.268                             | - / 40.602                     | - / 41.763                                                                                        | Continuing                     | Continuing                     |  |
| <b>Subtotal: PQ069 Automated Digital Network System (ADNS) - Afloat</b>                      | 58 / 27.869                    | 57 / 29.531                    | 54 / 38.583                    | 82 / 46.899                                                                   | - / -                          | 82 / 46.899                    | 73 / 44.975                    | 78 / 41.268                            | 55 / 40.602                    | 53 / 41.763                                                                                       | Continuing                     | Continuing                     |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                         | - / 27.869                     | - / 29.531                     | - / 38.583                     | - / 46.899                                                                    | - / -                          | - / 46.899                     | - / 44.975                     | - / 41.268                             | - / 40.602                     | - / 41.763                                                                                        | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                                      |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| 2.1) ADNS - Production Support                                                               | - / 1.300                      | - / 1.200                      | - / 1.474                      | - / 1.753                                                                     | - / -                          | - / 1.753                      | - / 1.623                      | - / 1.423                              | - / 1.590                      | - / 1.900                                                                                         | Continuing                     | Continuing                     |  |
| 2.2) ADNS - DSA <sup>(6)</sup>                                                               | - / 1.888                      | - / 1.668                      | - / 1.073                      | - / 2.599                                                                     | - / -                          | - / 2.599                      | - / 2.694                      | - / 2.991                              | - / 2.415                      | - / 2.061                                                                                         | Continuing                     | Continuing                     |  |
| <b>Subtotal: Support</b>                                                                     | - / 3.188                      | - / 2.868                      | - / 2.547                      | - / 4.352                                                                     | - / -                          | - / 4.352                      | - / 4.317                      | - / 4.414                              | - / 4.005                      | - / 3.961                                                                                         | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                                          |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ069 Automated Digital Network System (ADNS) - Afloat      | - / 14.049                     | - / 8.892                      | - / 8.306                      | - / 12.158                                                                    | - / 0.000                      | - / 12.158                     | - / 12.134                     | - / 14.313                             | - / 13.239                     | - / 13.823                                                                                        | Continuing                     | Continuing                     |  |
| <b>Subtotal: Installation</b>                                                                | - / 14.049                     | - / 8.892                      | - / 8.306                      | - / 12.158                                                                    | - / -                          | - / 12.158                     | - / 12.134                     | - / 14.313                             | - / 13.239                     | - / 13.823                                                                                        | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                                 |                                |                                |                                |                                                                               |                                |                                |                                |                                        |                                |                                                                                                   |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                     | 45.106                         | 41.291                         | 49.436                         | 63.409                                                                        | 0.000                          | 63.409                         | 61.426                         | 59.995                                 | 57.846                         | 59.547                                                                                            | Continuing                     | Continuing                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                       |                                |                                |                                |                                                                               |                                |                                | <b>Date:</b> February 2018           |                                                                                                   |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                                |                                |                                      | <b>Modification Number / Title:</b><br>2 / PQ069 Automated Digital Network System (ADNS) - Afloat |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                          |                                |                                |                                |                                                                               |                                |                                | <b>MDAP/MAIS Code:</b>               |                                                                                                   |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> PQ069 Automated Digital Network System (ADNS) - Afloat                                          |                                |                                |                                |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                                                  |                                |                                |                                |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| Manufacturer Name: SSC PAC-- San Diego, CA                                                                                       |                                |                                |                                |                                                                               |                                |                                | Manufacturer Location: San Diego, CA |                                                                                                   |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 1                                                                                           |                                |                                |                                |                                                                               |                                |                                | Production Leadtime (in Months): 2   |                                                                                                   |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                       |                                                                                                   |                                |                                |                                |                                |
| Contract Dates                                                                                                                   | Nov 2016                       | Dec 2017                       | Nov 2018                       |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| Delivery Dates                                                                                                                   | Jan 2017                       | Feb 2018                       | Jan 2019                       |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| Manufacturer Name: VARIOUS <sup>(7)</sup>                                                                                        |                                |                                |                                |                                                                               |                                |                                | Manufacturer Location: VARIOUS       |                                                                                                   |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 1                                                                                           |                                |                                |                                |                                                                               |                                |                                | Production Leadtime (in Months): 7   |                                                                                                   |                                |                                |                                |                                |
| <b>Dates</b>                                                                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                       |                                                                                                   |                                |                                |                                |                                |
| Contract Dates                                                                                                                   |                                | Dec 2017                       | Nov 2018                       |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| Delivery Dates                                                                                                                   |                                | Jul 2018                       | Jun 2019                       |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                                                  |                                |                                |                                |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Automated Digital Network System (ADNS) - Afloat- INC III |                                |                                |                                |                                                                               |                                |                                |                                      |                                                                                                   |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                           | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                       | <b>FY 2021</b>                                                                                    | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)       | Qty (Each) / Total Cost (\$ M)                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                                                      | 33 / 13.329                    | 13 / 5.365                     | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                | - / -                                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 46 / 18.694                    |
| FY 2017                                                                                                                          | - / -                          | 3 / 1.367                      | 18 / 6.764                     | - / -                                                                         | - / -                          | - / -                          | - / -                                | - / -                                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 21 / 8.131                     |
| FY 2018                                                                                                                          | - / -                          | - / -                          | - / -                          | 28 / 9.080                                                                    | 0 / 0.000                      | 28 / 9.080                     | - / -                                | - / -                                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 28 / 9.080                     |
| FY 2019                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | 33 / 10.022                          | - / -                                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 33 / 10.022                    |
| FY 2020                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                | 40 / 11.518                                                                                       | - / -                          | - / -                          | 0 / 0.000                      | 40 / 11.518                    |
| FY 2021                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                | - / -                                                                                             | 35 / 12.100                    | - / -                          | 0 / 0.000                      | 35 / 12.100                    |
| FY 2022                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                | - / -                                                                                             | - / -                          | 38 / 12.871                    | 0 / 0.000                      | 38 / 12.871                    |
| FY 2023                                                                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                | - / -                                                                                             | - / -                          | - / -                          | Continuing                     | Continuing                     |
| To Complete                                                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                | - / -                                                                                             | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total                                                                                                                            | 33 / 13.329                    | 16 / 6.732                     | 18 / 6.764                     | 28 / 9.080                                                                    | 0 / 0.000                      | 28 / 9.080                     | 33 / 10.022                          | 40 / 11.518                                                                                       | 35 / 12.100                    | 38 / 12.871                    | Continuing                     | Continuing                     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                               | <b>Date:</b> February 2018                                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation | <b>Modification Number / Title:</b><br>2 / PQ069 Automated Digital Network System (ADNS) - Afloat |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** PQ069 Automated Digital Network System (ADNS) - Afloat

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: Automated Digital Network System (ADNS) - Afloat- INC III

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|-------|-------|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In  | 33  | -       | 5  | 1  | 5  | 5       | 7  | 7  | 4  | 3       | 13 | 6  | 6  | 7       | 11 | 7  | 8  | 6       | 11 | 16 | 7  | 9       | 19 | 3  | 4  | 12      | 10 | 9  | 7  | Cont. | Cont. |
| Out | 33  | -       | -  | 5  | 2  | 5       | 4  | 8  | 6  | 8       | 3  | 15 | 6  | -       | 7  | 12 | 9  | 5       | 6  | 12 | 16 | 6       | 11 | 17 | 4  | 3       | 12 | 10 | 11 | Cont. | Cont. |

**Method of Implementation:** [none specified]:: Installation Name: ADNS Tech Insertions

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 12 / 0.720                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 12 / 0.720                     |
| FY 2017           | - / -                          | 36 / 2.160                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 36 / 2.160                     |
| FY 2018           | - / -                          | - / -                          | 22 / 1.542                     | 4 / 0.251                      | 0 / 0.000                      | 4 / 0.251                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 26 / 1.793                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | 45 / 2.827                     | 0 / 0.000                      | 45 / 2.827                     | 4 / 0.576                      | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 49 / 3.403                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 28 / 1.536                     | 5 / 0.325                      | - / -                          | - / -                          | 0 / 0.000                      | 33 / 1.861                     |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 40 / 2.470                     | 3 / 0.201                      | - / -                          | 0 / 0.000                      | 43 / 2.671                     |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 14 / 0.938                     | 3 / 0.204                      | 0 / 0.000                      | 17 / 1.142                     |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 14 / 0.748                     | 0 / 0.000                      | 14 / 0.748                     |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total             | 12 / 0.720                     | 36 / 2.160                     | 22 / 1.542                     | 49 / 3.078                     | 0 / 0.000                      | 49 / 3.078                     | 32 / 2.112                     | 45 / 2.795                     | 17 / 1.139                     | 17 / 0.952                     | Continuing                     | Continuing                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|-------|-------|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In  | 11  | 1       | 9  | 9  | 10 | 8       | 10 | 6  | 6  | 4       | 6  | 19 | 20 | 4       | 10 | 10 | 8  | 5       | 12 | 10 | 18 | 3       | 8  | 3  | 3  | 3       | 5  | 5  | 4  | Cont. | Cont. |
| Out | 9   | 2       | 7  | 12 | 10 | 8       | 7  | 8  | 4  | 7       | 7  | 10 | 18 | 14      | 6  | 14 | 6  | 7       | 11 | 11 | 13 | 8       | 8  | 3  | 3  | 3       | 5  | 5  | 4  | Cont. | Cont. |

**Footnotes:**

<sup>(4)</sup> ADNS INC III Afloat procurement cost range: \$.5M - \$1.5M; installation cost range: \$.3M - \$1.0M. Average unit cost fluctuations for procurement and installation are due to varying system configurations required for surface and submarine platforms. INC III units require 3 months integration, assembly, testing and shipping after delivery, prior to installation start. Installs do not begin until 10 months after procurement contract award (7 months production lead time + 3 months integration).

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                               | <b>Date:</b> February 2018                                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation | <b>Modification Number / Title:</b><br>2 / PQ069 Automated Digital Network System (ADNS) - Afloat |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                               | <b>MDAP/MAIS Code:</b>                                                                            |
| <p><sup>(5)</sup> FY19: Technical Insertions (TI) will be fielded to include hardware and software baseline updates to Afloat units required to maximize C4ISR capability and interface functionality between ADNS and applicable Satellite Communications (SATCOM) systems such as Navy Multi-Band Terminal(NMT), Global Broadcast System(GBS) and Battle Force Tactical Network (BFTN). Tech Insertion unit cost includes production engineering/integration requirements associated with the initial fielding of tech insertion capability. TI(s) require (1) month administrative lead time and (2) months production lead time.</p> <p><sup>(6)</sup> -DSA in FY18 is disproportionately lower compared to the other years due to having a greater proportion of submarines and backfits being installed that year. DSA costs per unit fluctuates based on the type of platform (submarine vs CVN) and the type of system (Backfit vs new install) and can vary between \$15K - \$200K.</p> <p><sup>(7)</sup> ADNS: Full Production Contract has 4 possible vendors on MAC award: SERCO, Inc, SAIC, DRS Laurel Technologies, and Leidos. Contract will be used for Increment III production units.</p> |                                                                               |                                                                                                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                                                                               |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                                                           |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / PQ070 Shore Tactical Assured Command and Control (STACC)<br>(formerly Tactical Switching) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                                                                               |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                                                      |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                                                       | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                                                                             | -                  | -                    | -                      | -              | -              | -                                                                                                                                    | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 283.073            | 25.293         | 37.512         | 29.455                                                                        | 0.000              | 29.455               | 31.189                 | 20.857         | 17.143         | 17.482                                                                                                                               | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                                                                             | -                  | -                    | -                      | -              | -              | -                                                                                                                                    | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 283.073            | 25.293         | 37.512         | 29.455                                                                        | 0.000              | 29.455               | 31.189                 | 20.857         | 17.143         | 17.482                                                                                                                               | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                                                                             | -                  | -                    | -                      | -              | -              | -                                                                                                                                    | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>283.073</b>     | <b>25.293</b>  | <b>37.512</b>  | <b>29.455</b>                                                                 | <b>0.000</b>       | <b>29.455</b>        | <b>31.189</b>          | <b>20.857</b>  | <b>17.143</b>  | <b>17.482</b>                                                                                                                        | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                               |                    |                      |                        |                |                |                                                                                                                                      |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                             | -                  | -                    | -                      | -              | -              | -                                                                                                                                    | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                             | -                  | -                    | -                      | -              | -              | -                                                                                                                                    | -                  | -                 |
| <p><b>Description:</b></p> <p>Shore Tactical Assured Command and Control (STACC) is the Navy's Program of Record to consolidate and modernize the ashore network infrastructure supporting afloat forces and shore commands assigned with tactical, operational, and strategic missions. STACC directly supports afloat legacy networks (e.g., ISNS), CANES and ADNS and all associated systems installed on those networks by providing direct interfaces to the Defense Information Systems Network (DISN), thus enabling interoperability within Navy tactical forces and with combatant commands, joint forces, coalition/mission partners, and other Services/Agencies. STACC fields capability at five regions, covering over 40 facilities in both CONUS and OCONUS locations, to include Naval Computer and Telecommunications Area Master Stations (NCTAMS), Naval Computer and Telecommunications Stations (NCTS), Maritime Operations Centers (MOCs), Fleet Network Operations Centers, Satellite Gateways, and Broadcast Control Authorities (BCAs). STACC supports over 410 surface and subsurface platforms. The STACC portfolio includes transport services, core network services, and network monitoring and management and is comprised of hardware, software, computing/processing, network, and storage technologies. These services span several security classification levels to include unclassified, secret, Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M), Sensitive Compartmented Information (SCI), and Virtual Secure Enclave (VSE). VSE is a new security enclave designed to support highly contested cyber operations providing proactive network defense.</p> <p>The network management service provides users with access to near real time situational awareness of the health and status of the network. STACC enables operators the ability to understand what is and is not normal on the network and provides a pre-emptive cyberspace capability to fight and win in a cyber-denied information environment. The STACC's network monitoring and management system is also a critical and foundational data set provider to the Navy's Cyber Situational Awareness (NCSA) program/system which performs further processing, correlation, and impact assessment. The STACC network core service offerings provide afloat platforms reach back services such as email, chat, Domain Name System (DNS), patching and C2 application hosting services for programs that need to be in a tactical environment. The hosting services include Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) offerings.</p> <p>[MILCON P913:Shore Based Enterprise Network Enhancements] Shore Tactical Assured Command and Control (STACC) new suite of systems for the outfitting of the MILCON P-913 NCTAMS LANT new communication facility. The new NCTAMS LANT building will provide a secure, efficient, sustainable and adaptable communications facility to support all telecommunications requirements within the Atlantic Area of Operations.</p> |                    |                |                |                                                                               |                    |                      |                        |                |                |                                                                                                                                      |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                              |                                |                                |                                |                                                                        |                                |                                |                                | Date: February 2018                                                                                                           |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                                        |                                |                                |                                | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation |                                |                                |                                | Modification Number / Title:<br>3 / PQ070 Shore Tactical Assured Command and Control (STACC)<br>(formerly Tactical Switching) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                 |                                |                                |                                |                                                                        |                                |                                | MDAP/MAIS Code:                |                                                                                                                               |                                |                                |                                |                                |  |
| Models of Systems Affected: [No Model Specified]                                                                 |                                |                                |                                | Modification Type: TBD                                                 |                                |                                |                                | Related RDT&E PEs:                                                                                                            |                                |                                |                                |                                |  |
| Financial Plan                                                                                                   | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                           | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                                                       | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                                                      |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| Modification Item 1 of 1: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| B Kits                                                                                                           |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| Recurring                                                                                                        |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| 1.1.1) Consolidated Prior Year Requirements - Organic                                                            | 10 / 35.760                    | - / -                          | - / -                          | - / -                                                                  | - / -                          | - / -                          | - / -                          | - / -                                                                                                                         | - / -                          | - / -                          | - / -                          | 10 / 35.760                    |  |
| 1.1.2) Equipment - Increment II - NonOrganic <sup>(8)</sup>                                                      | 50 / 195.695                   | 5 / 19.980                     | 5 / 30.760                     | 5 / 20.352                                                             | - / -                          | 5 / 20.352                     | 5 / 17.587                     | 5 / 13.864                                                                                                                    | 5 / 14.469                     | 5 / 14.717                     | Continuing                     | Continuing                     |  |
| 1.1.3) MILCON P913:Shore Based Enterprise Network Enhancements - NonOrganic <sup>(9)</sup>                       | - / -                          | - / -                          | - / -                          | 1 / 5.985                                                              | - / -                          | 1 / 5.985                      | 1 / 5.504                      | - / -                                                                                                                         | - / -                          | - / -                          | - / -                          | 2 / 11.489                     |  |
| Subtotal: Recurring                                                                                              | - / 231.455                    | - / 19.980                     | - / 30.760                     | - / 26.337                                                             | - / -                          | - / 26.337                     | - / 23.091                     | - / 13.864                                                                                                                    | - / 14.469                     | - / 14.717                     | Continuing                     | Continuing                     |  |
| Subtotal: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)                 | 60 / 231.455                   | 5 / 19.980                     | 5 / 30.760                     | 6 / 26.337                                                             | - / -                          | 6 / 26.337                     | 6 / 23.091                     | 5 / 13.864                                                                                                                    | 5 / 14.469                     | 5 / 14.717                     | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                                                                    | - / 231.455                    | - / 19.980                     | - / 30.760                     | - / 26.337                                                             | - / -                          | - / 26.337                     | - / 23.091                     | - / 13.864                                                                                                                    | - / 14.469                     | - / 14.717                     | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                                                                 |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| 2.1) Production Support Increment I and II                                                                       | - / 18.725                     | - / 1.313                      | - / 1.500                      | - / 0.701                                                              | - / -                          | - / 0.701                      | - / 0.699                      | - / 0.695                                                                                                                     | - / 0.704                      | - / 0.665                      | Continuing                     | Continuing                     |  |
| 2.2) MILCON P913: Production                                                                                     | - / -                          | - / -                          | - / -                          | - / 0.315                                                              | - / -                          | - / 0.315                      | - / 0.321                      | - / 0.328                                                                                                                     | - / -                          | - / -                          | - / -                          | - / 0.964                      |  |
| Subtotal: Support                                                                                                | - / 18.725                     | - / 1.313                      | - / 1.500                      | - / 1.016                                                              | - / -                          | - / 1.016                      | - / 1.020                      | - / 1.023                                                                                                                     | - / 0.704                      | - / 0.665                      | Continuing                     | Continuing                     |  |
| Installation                                                                                                     |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| Modification Item 1 of 1: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) | - / 32.893                     | - / 4.000                      | - / 5.252                      | - / 2.102                                                              | - / 0.000                      | - / 2.102                      | - / 7.078                      | - / 5.970                                                                                                                     | - / 1.970                      | - / 2.100                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                                                           | - / 32.893                     | - / 4.000                      | - / 5.252                      | - / 2.102                                                              | - / -                          | - / 2.102                      | - / 7.078                      | - / 5.970                                                                                                                     | - / 1.970                      | - / 2.100                      | Continuing                     | Continuing                     |  |
| Total                                                                                                            |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                                                                | 283.073                        | 25.293                         | 37.512                         | 29.455                                                                 | 0.000                          | 29.455                         | 31.189                         | 20.857                                                                                                                        | 17.143                         | 17.482                         | Continuing                     | Continuing                     |  |
|                                                                                                                  |                                |                                |                                |                                                                        |                                |                                |                                |                                                                                                                               |                                |                                |                                |                                |  |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                              |                                |                                |                                |                                |                                                                               |                                |                                |                                       |                                | <b>Date:</b> February 2018                                                                                                           |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                        |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                                |                                |                                       |                                | <b>Modification Number / Title:</b><br>3 / PQ070 Shore Tactical Assured Command and Control (STACC)<br>(formerly Tactical Switching) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                 |                                |                                |                                |                                |                                                                               |                                |                                | <b>MDAP/MAIS Code:</b>                |                                |                                                                                                                                      |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) |                                |                                |                                |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| <b>Manufacturer Information</b>                                                                                         |                                |                                |                                |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| Manufacturer Name: SSC LANT                                                                                             |                                |                                |                                |                                |                                                                               |                                |                                | Manufacturer Location: Charleston, SC |                                |                                                                                                                                      |                                |                                |  |
| Administrative Leadtime (in Months): 5                                                                                  |                                |                                |                                |                                |                                                                               |                                |                                | Production Leadtime (in Months): 2    |                                |                                                                                                                                      |                                |                                |  |
| <b>Dates</b>                                                                                                            | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                       |                                |                                                                                                                                      |                                |                                |  |
| Contract Dates                                                                                                          | May 2017                       | Mar 2018                       | Mar 2019                       |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| Delivery Dates                                                                                                          | Jul 2017                       | May 2018                       | May 2019                       |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| Manufacturer Name: SSC LANT (MILCON P-913) <sup>(10)</sup>                                                              |                                |                                |                                |                                |                                                                               |                                |                                | Manufacturer Location: Charleston, SC |                                |                                                                                                                                      |                                |                                |  |
| Administrative Leadtime (in Months): 5                                                                                  |                                |                                |                                |                                |                                                                               |                                |                                | Production Leadtime (in Months): 5    |                                |                                                                                                                                      |                                |                                |  |
| <b>Dates</b>                                                                                                            | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                       |                                |                                                                                                                                      |                                |                                |  |
| Contract Dates                                                                                                          |                                |                                | Mar 2019                       |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| Delivery Dates                                                                                                          |                                |                                | Aug 2019                       |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| <b>Installation Information</b>                                                                                         |                                |                                |                                |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| <b>Method of Implementation:</b> Method:: Installation Name: PQ070 Shore Tactical Assured Command and Control (STACC)   |                                |                                |                                |                                |                                                                               |                                |                                |                                       |                                |                                                                                                                                      |                                |                                |  |
| <b>Installation Cost</b>                                                                                                | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                            | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                        | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                                                       | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Prior Years                                                                                                             | 50 / 32.893                    | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                 | - / -                          | - / -                                                                                                                                | 0 / 0.000                      | 50 / 32.893                    |  |
| FY 2017                                                                                                                 | - / -                          | 5 / 4.000                      | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                 | - / -                          | - / -                                                                                                                                | 0 / 0.000                      | 5 / 4.000                      |  |
| FY 2018                                                                                                                 | - / -                          | - / -                          | 5 / 5.252                      | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                 | - / -                          | - / -                                                                                                                                | 0 / 0.000                      | 5 / 5.252                      |  |
| FY 2019                                                                                                                 | - / -                          | - / -                          | - / -                          | 5 / 2.102                      | 0 / 0.000                                                                     | 5 / 2.102                      | 1 / 4.300                      | - / -                                 | - / -                          | - / -                                                                                                                                | 0 / 0.000                      | 6 / 6.402                      |  |
| FY 2020                                                                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | 5 / 2.778                      | 1 / 3.684                             | - / -                          | - / -                                                                                                                                | 0 / 0.000                      | 6 / 6.462                      |  |
| FY 2021                                                                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | 5 / 2.286                             | - / -                          | - / -                                                                                                                                | 0 / 0.000                      | 5 / 2.286                      |  |
| FY 2022                                                                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                 | 5 / 1.970                      | - / -                                                                                                                                | 0 / 0.000                      | 5 / 1.970                      |  |
| FY 2023                                                                                                                 | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                 | - / -                          | 5 / 2.100                                                                                                                            | 0 / 0.000                      | 5 / 2.100                      |  |
| To Complete                                                                                                             | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                                 | - / -                          | - / -                                                                                                                                | Continuing                     | Continuing                     |  |
| Total                                                                                                                   | 50 / 32.893                    | 5 / 4.000                      | 5 / 5.252                      | 5 / 2.102                      | 0 / 0.000                                                                     | 5 / 2.102                      | 6 / 7.078                      | 6 / 5.970                             | 5 / 1.970                      | 5 / 2.100                                                                                                                            | Continuing                     | Continuing                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>Date:</b> February 2018                                                                                                           |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation                                                        |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | <b>Modification Number / Title:</b><br>3 / PQ070 Shore Tactical Assured Command and Control (STACC)<br>(formerly Tactical Switching) |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>MDAP/MAIS Code:</b>                                                                                                               |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
| <b>Modification Item 1 of 1:</b> PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                                                                                                                      |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                                                                                                      |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
| <b>Method of Implementation:</b> Method:: Installation Name: PQ070 Shore Tactical Assured Command and Control (STACC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                                                                                                                      |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                                                                                                                      |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | <b>FY 2017</b>                                                                                                                       |           |           |           | <b>FY 2018</b> |           |           |           | <b>FY 2019</b> |           |           |           | <b>FY 2020</b> |           |           |           | <b>FY 2021</b> |           |           |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |  |                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>PYS</b> | <b>Q1</b>                                                                                                                            | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |  |                                  |  |  |  |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 50         | -                                                                                                                                    | -         | -         | 5         | -              | -         | 5         | -         | -              | -         | 5         | -         | -              | -         | 6         | -         | -              | 1         | 5         | -         | -              | -         | 5         | -         | -              | -         | 5         | -         | Cont.     | Cont.      |  |                                  |  |  |  |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 50         | -                                                                                                                                    | -         | -         | -         | 5              | -         | -         | 5         | -              | -         | -         | 5         | -              | -         | -         | 5         | 1              | -         | -         | 6         | -              | -         | -         | 5         | -              | -         | -         | 5         | Cont.     | Cont.      |  |                                  |  |  |  |
| <b>Method of Implementation (Organic):</b> Consolidated Prior Year Requirements - Not Installed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                                                                                                      |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  | <b>Installation Quantity:</b> 10 |  |  |  |
| <p><b>Footnotes:</b></p> <p><sup>(8)</sup> FY19 STACC decrease from FY18 to FY19 is due to the completion of the procurement and installation of Sensitive Compartmental Information (SCI) Tech Refresh the Pacific Region Network Operational Center (PRNOC) and Unified Atlantic Region Network Center (UARNOC) and the completion of Build 1.0 Tech Refresh and installation for the Indian Ocean Region Network Operations Center (IORNOC) and European Central Region Network Operations Center (ECRNOC) Secret and Unclassified networks.//FY19 funding will engineer, integrate, procure, and install hardware and software to: transition legacy serial transport to an IP environment; expand IP services (Unclassified, SECRET, CENTRIXS-M NOC, SCI NOC and VSE ASP) to include application hosting services and expand storage capability; and enhance Network Operations monitoring and management, ORT cyber remediation solutions to detect, deter and mitigate network threats and for Assured Command and Control to support terrestrial communications and routing changes. STACC's Unit and installation cost vary each year depending on what modernization must be done to maintain the cyber resiliency of the network and what site(s) within each region is included in the modernization effort. Factors that relate to the cost include whether or not the modernization addresses increased bandwidth, risk vulnerabilities, and/or increased survivability and reliability.// Increment II quantities represent 5 major shore regions: 1)Eastern Pacific supporting Commander Pacific Fleet and Commander Third Fleet (Naval Computer &amp; Telecommunications Area Master Station Pacific (NCTAMS PAC) and Naval Computer &amp; Telecommunications Station San Diego (NCTS San Diego); 2) Western Pacific supporting Commander Seventh Fleet; 3) Indian Ocean supporting Commander Fifth (NCTS BAHRAIN); 4) European supporting Commander Sixth Fleet (NCTS NAPLES); and 5) Atlantic supporting US Fleet Forces Command, Commander Tenth Fleet and Commander Fourth Fleet (NCTAMS LANT); and Joint and Coalition Partners within each region.</p> <p><sup>(9)</sup> The various STACC systems, which make up the network, will be procured and installed in two phases to align with the P-913 MILCON transition plan.</p> <p><sup>(10)</sup> Manufacturer for MILCON P-913 STACC equipment. Integration efforts required prior to installation FY20 Q3 installation.</p> |            |                                                                                                                                      |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |                |           |           |           |           |            |  |                                  |  |  |  |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                    |             |         |         |                                                                        |             |               |                 |         | Date: February 2018                                                                                       |         |             |        |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                                                              |             |         |         | P-1 Line Item Number / Title:<br>3050 / Ship Communications Automation |             |               |                 |         | Modification Number / Title:<br>4 / PQ007 Legacy Network Cyber<br>Resiliency/Operation Rolling Tide (ORT) |         |             |        |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |                                                                        |             |               | MDAP/MAIS Code: |         |                                                                                                           |         |             |        |
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                           | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022                                                                                                   | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -                                                                      | -           | -             | -               | -       | -                                                                                                         | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 46.174      | 36.156  | 10.094  | 0.000                                                                  | 0.000       | 0.000         | 0.000           | 0.000   | 0.000                                                                                                     | 0.000   | 0.000       | 92.424 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -                                                                      | -           | -             | -               | -       | -                                                                                                         | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 46.174      | 36.156  | 10.094  | 0.000                                                                  | 0.000       | 0.000         | 0.000           | 0.000   | 0.000                                                                                                     | 0.000   | 0.000       | 92.424 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -                                                                      | -           | -             | -               | -       | -                                                                                                         | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 46.174      | 36.156  | 10.094  | 0.000                                                                  | 0.000       | 0.000         | 0.000           | 0.000   | 0.000                                                                                                     | 0.000   | 0.000       | 92.424 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |                                                                        |             |               |                 |         |                                                                                                           |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -                                                                      | -           | -             | -               | -       | -                                                                                                         | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -                                                                      | -           | -             | -               | -       | -                                                                                                         | -       | -           | -      |

**Description:**

Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT): ORT is a Navy-wide cyber remediation effort to secure government databases and improve the overall security protocols for Navy computer networks. Specifically, Legacy Network Cyber Resiliency/ORT will fund planned legacy network upgrades and mitigate security vulnerabilities on the highest End of Life platforms that are not targeted to be replaced by a Consolidated Afloat Networks & Enterprise Services (CANES) system. These upgrades will mitigate known targeted cyber vulnerabilities and include eradication of old Windows Operating Systems, critical End of Life (EOL) firewalls and routers and improved anti-malware solutions. Legacy Network Cyber Resiliency/ORT will improve the networks ability to detect known and unknown vulnerabilities and attacks by upgrading sensor and monitoring technologies and accelerate post-attack containment and recovery.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                          |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                                    |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                    |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>4 / PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                             |                                |                                |                                |                                                                               |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                                               |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                                             |                                |                                |                                | <b>Modification Type:</b> TBD                                                 |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                                               |                                |                                |  |
| <b>Financial Plan</b>                                                                               | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                           | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                                | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                  |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| B Kits                                                                                              |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| Recurring                                                                                           |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| 1.1.1) Legacy Network Cyber Resiliency/ORT Afloat - Equipment - NonOrganic <sup>(11)</sup>          | 79 / 31.254                    | 26 / 22.311                    | 11 / 7.290                     | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / -                          | 116 / 60.855                   |  |
| 1.1.2) Legacy Network Cyber Resiliency/ORT Ashore - Equipment - NonOrganic                          | 2 / 1.885                      | 2 / 3.301                      | 2 / 0.499                      | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / -                          | 6 / 5.685                      |  |
| <b>Subtotal: Recurring</b>                                                                          | - / 33.139                     | - / 25.612                     | - / 7.789                      | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / 0.000                      | - / 66.540                     |  |
| <b>Subtotal: PQ007 Legacy Network Cyber Resiliency/ Operation Rolling Tide (ORT)</b>                | 81 / 33.139                    | 28 / 25.612                    | 13 / 7.789                     | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / -                          | 122 / 66.540                   |  |
| <b>Subtotal: Procurement, All Modification Items</b>                                                | - / 33.139                     | - / 25.612                     | - / 7.789                      | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / 0.000                      | - / 66.540                     |  |
| <b>Support (All Modification Items)</b>                                                             |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| 2.1) Legacy Network Cyber Resiliency/ORT - DSA                                                      | - / 0.692                      | - / 0.550                      | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / -                          | - / 1.242                      |  |
| <b>Subtotal: Support</b>                                                                            | - / 0.692                      | - / 0.550                      | - / -                          | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / 0.000                      | - / 1.242                      |  |
| <b>Installation</b>                                                                                 |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| <b>Modification Item 1 of 1:</b> PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) | - / 12.343                     | - / 9.994                      | - / 2.305                      | - / 0.000                                                                     | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                                                     | - / 0.000                      | - / 24.642                     |  |
| <b>Subtotal: Installation</b>                                                                       | - / 12.343                     | - / 9.994                      | - / 2.305                      | - / -                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                                         | - / 0.000                      | - / 24.642                     |  |
| <b>Total</b>                                                                                        |                                |                                |                                |                                                                               |                                |                                |                                |                                |                                |                                                                                                               |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                            | <b>46.174</b>                  | <b>36.156</b>                  | <b>10.094</b>                  | <b>0.000</b>                                                                  | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                                                                                                  | <b>0.000</b>                   | <b>92.424</b>                  |  |

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|                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
|-------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                    |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                    |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11                                              |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation |           |                                |           |                                |                                            |                                |           |                                |           | <b>Modification Number / Title:</b><br>4 / PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                     |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)                           |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: SSC LANT                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                | Manufacturer Location: SSC LANT            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 2                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                | Production Leadtime <i>(in Months)</i> : 3 |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                  |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                |           |                                |           | <b>FY 2020</b>                 |                                            |                                |           | <b>FY 2021</b>                 |           |                                                                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                |            | Mar 2017                       |           |                                |           | Mar 2018                       |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Legacy Network Cyber Resiliency/ORT Afloat - Equipment |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                      |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                            |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                            | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                                |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                               |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                                |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                   |            | 54 / 12.243                    |           | 25 / 6.015                     |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | 0 / 0.000                      |           | 79 / 18.258                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                                       |            | - / -                          |           | 25 / 3.731                     |           | 1 / 0.294                      |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | 0 / 0.000                      |           | 26 / 4.025                     |           |                |           |           |           |           |            |
| FY 2018                                                                                                                       |            | - / -                          |           | - / -                          |           | 11 / 1.751                     |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | 0 / 0.000                      |           | 11 / 1.751                     |           |                |           |           |           |           |            |
| FY 2019                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                         |            | 54 / 12.243                    |           | 50 / 9.746                     |           | 12 / 2.045                     |           | - / -                          |           | - / -                                                                         |           | - / -                          |           | - / -                          |                                            | - / -                          |           | - / -                          |           | - / -                                                                                                         |           | 0 / 0.000                      |           | 116 / 24.034                   |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                               |           |                                |           |                                |                                            |                                |           |                                |           |                                                                                                               |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                |           |                                |           | <b>FY 2020</b>                 |                                            |                                |           | <b>FY 2021</b>                 |           |                                                                                                               |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                               |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                     | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                                  | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                                     | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                            | 26         | 28                             | 16        | 25                             | 9         | -                              | 1         | 8                              | 2         | 1                                                                             | -         | -                              | -         | -                              | -                                          | -                              | -         | -                              | -         | -                                                                                                             | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 116        |
| Out                                                                                                                           | 18         | 17                             | 31        | 21                             | 10        | 7                              | -         | 1                              | 6         | 1                                                                             | 4         | -                              | -         | -                              | -                                          | -                              | -         | -                              | -         | -                                                                                                             | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 116        |

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|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                               | <b>Date:</b> February 2018                                                                                    |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 | <b>P-1 Line Item Number / Title:</b><br>3050 / Ship Communications Automation | <b>Modification Number / Title:</b><br>4 / PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** PQ007 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: Legacy Network Cyber Resiliency/ORT Ashore - Equipment

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 1 / 0.100                      | 1 / 0.100                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.200                      |
| FY 2017           | - / -                          | 2 / 0.148                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.148                      |
| FY 2018           | - / -                          | - / -                          | 2 / 0.260                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.260                      |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 1 / 0.100                      | 3 / 0.248                      | 2 / 0.260                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.608                      |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 1   | 1       | -  | 2  | -  | -       | -  | 1  | 1  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 6   |
| Out | 1   | -       | 1  | -  | 2  | -       | -  | -  | 2  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 6   |

**Footnotes:**

(11) Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. The average procurement unit cost for larger deck unit level platforms range: \$.1M-\$5.7M. Smaller deck unit level platforms range: \$.1M-\$6M. Installation cost fluctuations are attributed to and dependent on class, level of the platform, variant of predecessor system the hull currently has installed, geographic location of the installation, and length of the availability. Installation cost range: \$.1M - \$2.8M.

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|---------------|-------------------------------------------------------------------------|------------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         |                                        |              |             |               |                                                                         | Date: February 2018                      |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 11: Shipboard Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         |                                        |              |             |               | P-1 Line Item Number / Title:<br>3057 / Communications Items under \$5M |                                          |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         | Program Elements for Code B Items: N/A |              |             |               |                                                                         | Other Related Program Elements: 0604280N |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020                                                                 | FY 2021                                  | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -           | -       | -                                      | -            | -           | -             | -                                                                       | -                                        | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 132.012     | 10.077  | 18.577                                 | 41.123       | 0.000       | 41.123        | 36.961                                                                  | 27.138                                   | 28.060  | 39.241  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -                                      | -            | -           | -             | -                                                                       | -                                        | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 132.012     | 10.077  | 18.577                                 | 41.123       | 0.000       | 41.123        | 36.961                                                                  | 27.138                                   | 28.060  | 39.241  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           | -       | -                                      | -            | -           | -             | -                                                                       | -                                        | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 132.012     | 10.077  | 18.577                                 | 41.123       | 0.000       | 41.123        | 36.961                                                                  | 27.138                                   | 28.060  | 39.241  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | 0.024   | -                                      | -            | -           | -             | -                                                                       | -                                        | -       | -       | -           | 0.024      |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -           | -       | -                                      | -            | -           | -             | -                                                                       | -                                        | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -           | -       | -                                      | -            | -           | -             | -                                                                       | -                                        | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| <p>[P5 / NU019 EPLRS-DR/EMUT]: Enhanced Position Location Reporting System - Data Radio (EPLRS-DR)/Enhanced Man-Pack UHF Tactical (EMUT) is a Blue in Support of Green (BISOG) program that provides secure Anti-Jam (AJ), Ultra High Frequency (UHF) (420-450 MHz) and Line of Sight (LOS) data communications in support of amphibious operations at throughputs of up to 54Kbps. EPLRS-DR provides embedded Position Location Information (PLI) between shipboard networks and the shore-based Marine Tactical Data Network (TDN) and the Army Tactical Internet (TI). To meet a National Security Agency (NSA) mandate, KOK13 cryptographic equipment was replaced with KOK23/CKG cryptographic equipment. EPLRs and EMUT efforts will include antenna upgrades. EPLRS-DR will also include Landing Force Iridium infrastructure.</p> |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| <p>[P5 / NU239 PORT NSW]: Portable Radio/Naval Special Warfare (PORT NSW) tactical radio: PORT NSW procures hand held and man pack/vehicular radios for NSW. Procurement needed to support Force Protection operations, especially with joint forces. NSW operational elements (SEAL platoons and Combatant Craft Detachments) rely on tactical communications and electronics equipment to accomplish all missions assigned in support of the Joint and Fleet commanders. Navy resourced tactical communications equipment is considered mission essential and will be employed by individual SEAL personnel and NSW combat elements in man pack configurations as well as onboard tactical vehicles and NSW combatant craft in tactical operations centers in fixed mount configurations.</p>                                           |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| <p>[P5 / NU295 BFTN]: Battle Force Tactical Network (BFTN): BFTN enables delivery of Internet Protocol (IP) based collaboration services over legacy High Frequency (HF) assets. The intent is to provide an interoperable, low data rate, multi-node, Beyond-Line-of-Sight tactical edge networking capability using existing HF radio infrastructure. Supports Tactical Edge Networking and provides data path backbone for both airborne and afloat forces and supports increased data exchange with Allied Coalition forces. BFTN provides National, Allied, and Coalition maritime units with a medium band IP-based, tactical ship-ship at-sea networking capability, using legacy half-duplex UHF Line-of-Sight. BFTN will provide a bridge between legacy radio systems and future emerging wideband networking technologies.</p> |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| <p>[P5 / NU790 Navy Expeditionary C4I]: Navy Expeditionary Command, Control, Communications, Computers, &amp; Intelligence (C4I): Provides procurement and integration for outfitting Table of Allowance (TOA) buy lists within the Expeditionary forces. Ensures common C4I solutions are being coordinated, tracked, procured and integrated across Navy Expeditionary Combat Command (NECC) forces. The increase in funding reflects establishment, approval and funding of NSW service-common Table Of Allowance to begin correcting shortfalls and bring NSW forces into alignment with required outfitting standards in accordance with SOCOM-USN Memorandum of Agreement.</p>                                                                                                                                                      |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |
| <p>[P5 / ESB SOF (BSO 24)]: Expeditionary Mobile Base Special Operations Forces (ESB SOF) - The SOF component requires an ESB (a type of boat)to have the capability for planning and conducting Intelligence, Surveillance, and Reconnaissance (ISR) for Boat Assault Force (BAF) and Helicopter Assault Force (HAF) missions. These funds procure and install equipment to support SOF communications, consisting of a radio backbone infrastructure and increasing the bandwidth to support SOF missions. These additional capabilities will be back fitted during ESB 4's Post Shakedown Availability.</p>                                                                                                                                                                                                                            |             |         |                                        |              |             |               |                                                                         |                                          |         |         |             |            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                       |             |                                               |                |                                          |                                                                                |                                          | <b>Date:</b> February 2018               |                                          |                                          |
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| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 11: Shipboard Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>3057 / Communications Items under \$5M |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> 0604280N                                |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |             |                                               |                |                                          |                                                                                |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                       |             |                                               |                | Prior Years                              | FY 2017                                                                        | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Title*                                | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                       | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 / Communications Items under \$5M   | P-5a        |                                               |                | - / 132.012                              | - / 10.077                                                                     | - / 18.577                               | - / 41.123                               | - / 0.000                                | - / 41.123                               |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Total Gross/Weapon System Cost</b> |             |                                               |                | <b>- / 132.012</b>                       | <b>- / 10.077</b>                                                              | <b>- / 18.577</b>                        | <b>- / 41.123</b>                        | <b>- / 0.000</b>                         | <b>- / 41.123</b>                        |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |             |                                               |                |                                          |                                                                                |                                          |                                          |                                          |                                          |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       |             |                                               |                |                                          |                                                                                |                                          |                                          |                                          |                                          |
| <p><b>Justification:</b></p> <p>The FY 2019 funding request was reduced by (\$0.145) million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.</p> <p>NU239 - PORT NSW: The FY19 budget request funds the initial procurement of 372 radios to jump start the procurement and modernization level of effort, and incrementally achieve approved inventory threshold (874 radios) by the end of the FYDP. Thereafter, the focus will be on technical refresh and sustainment of the inventory based on assembly service lifecycle projections. The requirements for the radios is driven by communications requirements and deployment cycles. The total inventory of 874, as derived from the Force Readiness Manual (FRM), establishes the table of allowance requirements for training and operational inventory thresholds. Additionally, FY19 increase is due to equipment required for US Navy Special Forces End Strength Growth.</p> <p>NU295 / NU777 - Battle Force Tactical Network (BFTN): FY19 OPN funds the procurement of twelve (12) BFTN systems required to meet emerging communications threat environment and engineering changes to strengthen cyber security posture by implementing WIN 10 upgrades on previously fielded systems.</p> <p>NU019 - EPLRS-DR/EMUT: FY19 funding procures and installs 8 Enhanced Position Location Reporting System - Data Radio (EPLRS-DR)/Enhanced Man-Pack UHF Tactical (EMUT). A complete unit consists of one AN/VRC-114(V)2 radio mount, one RF-5051PS power supply, and associated equipment. The quantity procured in any given year is determined by the Fleet's demand signal and platform availability.</p> <p>NU385 - FY19 funding is for the procurement and installation of the remaining components to provide Special Operations Forces (SOF) capability on Expeditionary Mobile Base (ESB) 4. These funds will procure one Commercial Broadband Satellite Program (CBSP), one UHF SATCOM antenna, two HF antennas, one UHF/VHF System, two VHF Lo Antenna, two VHF Hi antennas and two UHF antennas.</p> <p>The cost delta between ESB 3 and ESB 4 are for the refurbished CBSP asset (ESB 3) vs new system (ESB 4) and the difference in labor rates (East Coast vs West Coast) for the Post Shakedown Availability (PSA) Efforts.</p> <p>NU790 - Navy Expeditionary FY19 funding is for procurement of service-common support communications and Automated Data Processing (ADP) equipment which directly supports forward deployed SEALs. Investment in communications equipment, to include but not limited to, portable hand held devices, man pack radios, ruggedized laptops, and encryption-decryption devices are essential to the readiness and battlefield effectiveness of NSW in winning the current fight against ISIS and other extremist elements. Additionally, it ensures the warfighter is optimally equipped with cutting edge communications equipment for the future fight.</p> |                                       |             |                                               |                |                                          |                                                                                |                                          |                                          |                                          |                                          |



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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               | Date: February 2018                                                 |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                                                              |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3057 / Communications Items under \$5M |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Communications Items under \$5M |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                                                                         |                     |               | MDAP/MAIS Code:      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017                                                                 |                     | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO                                                         |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                                   |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 132.012             |               | 10.077                                                                  |                     | 18.577        |                      | 41.123              |               | 0.000                                                               |                     | 41.123        |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                                   |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 132.012             |               | 10.077                                                                  |                     | 18.577        |                      | 41.123              |               | 0.000                                                               |                     | 41.123        |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                                   |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 132.012             |               | 10.077                                                                  |                     | 18.577        |                      | 41.123              |               | 0.000                                                               |                     | 41.123        |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | 0.024                                                                   |                     | -             |                      | -                   |               | -                                                                   |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                                                                       |                     | -             |                      | -                   |               | -                                                                   |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                                                                         | FY 2018             |               |                      | FY 2019 Base        |               |                                                                     | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                    | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - NU019 EPLRS-DR/EMUT Cost                                                                                                    |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Non Recurring Cost                                                                                                                     |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 1.1.1) EPLRS-DR Procurement <sup>(†)</sup> (1)                                                                                         | 55.191              | 47            | 2.594                | 135.000             | 2             | 0.270                                                                   | 143.125             | 8             | 1.145                | 142.625             | 8             | 1.141                                                               | -                   | -             | -                    | 142.625             | 8             | 1.141                |
| Subtotal: Non Recurring Cost                                                                                                           | -                   | -             | 2.594                | -                   | -             | 0.270                                                                   | -                   | -             | 1.145                | -                   | -             | 1.141                                                               | -                   | -             | -                    | -                   | -             | 1.141                |
| Subtotal: Hardware - NU019 EPLRS-DR/EMUT Cost                                                                                          | -                   | -             | 2.594                | -                   | -             | 0.270                                                                   | -                   | -             | 1.145                | -                   | -             | 1.141                                                               | -                   | -             | -                    | -                   | -             | 1.141                |
| Hardware - NU239 PORT NSW Cost                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 3.1.1) PORT NSW Hand Held Procurement <sup>(†)</sup> (2)                                                                               | 15.456              | 1,283         | 19.830               | 15.117              | 137           | 2.071                                                                   | 15.725              | 136           | 2.139                | 15.714              | 266           | 4.180                                                               | -                   | -             | -                    | 15.714              | 266           | 4.180                |
| 3.1.2) PORT NSW Man Pack Procurement <sup>(†)</sup> (3)                                                                                | 35.336              | 1,067         | 37.703               | 37.350              | 65            | 2.428                                                                   | 38.089              | 61            | 2.323                | 38.850              | 106           | 4.118                                                               | -                   | -             | -                    | 38.850              | 106           | 4.118                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 57.533               | -                   | -             | 4.499                                                                   | -                   | -             | 4.462                | -                   | -             | 8.298                                                               | -                   | -             | -                    | -                   | -             | 8.298                |
| Subtotal: Hardware - NU239 PORT NSW Cost                                                                                               | -                   | -             | 57.533               | -                   | -             | 4.499                                                                   | -                   | -             | 4.462                | -                   | -             | 8.298                                                               | -                   | -             | -                    | -                   | -             | 8.298                |
| Hardware - NU295 BFTN Cost                                                                                                             |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 4.1.1) BFTN System Procurement <sup>(†)</sup> (4)                                                                                      | 204.600             | 20            | 4.092                | 238.778             | 4             | 0.955                                                                   | -                   | -             | -                    | 291.000             | 12            | 3.492                                                               | -                   | -             | -                    | 291.000             | 12            | 3.492                |
|                                                                                                                                        |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               | Date: February 2018                                                 |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                      |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3057 / Communications Items under \$5M |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Communications Items under \$5M |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                                         |                     |               |                      | MDAP/MAIS Code:     |               |                                                                     |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                                         | FY 2018             |               |                      | FY 2019 Base        |               |                                                                     | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                    | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 4.1.2) Engineering Change Orders <sup>(5)</sup>                                                | -                   | -             | -                    | -                   | -             | -                                                                       | -                   | -             | 1.078                | -                   | -             | 1.100                                                               | -                   | -             | -                    | -                   | -             | 1.100                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 4.092                | -                   | -             | 0.955                                                                   | -                   | -             | 1.078                | -                   | -             | 4.592                                                               | -                   | -             | -                    | -                   | -             | 4.592                |
| Subtotal: Hardware - NU295 BFTN Cost                                                           | -                   | -             | 4.092                | -                   | -             | 0.955                                                                   | -                   | -             | 1.078                | -                   | -             | 4.592                                                               | -                   | -             | -                    | -                   | -             | 4.592                |
| Hardware - NU790 Navy Expeditionary C4I Cost                                                   |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 5.1.1) Navy Expeditionary C4I Procurement <sup>(6)</sup>                                       | 265,500             | 12            | 3.186                | -                   | -             | -                                                                       | -                   | -             | 9.027                | -                   | -             | 9.783                                                               | -                   | -             | -                    | -                   | -             | 9.783                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 3.186                | -                   | -             | -                                                                       | -                   | -             | 9.027                | -                   | -             | 9.783                                                               | -                   | -             | -                    | -                   | -             | 9.783                |
| Subtotal: Hardware - NU790 Navy Expeditionary C4I Cost                                         | -                   | -             | 3.186                | -                   | -             | -                                                                       | -                   | -             | 9.027                | -                   | -             | 9.783                                                               | -                   | -             | -                    | -                   | -             | 9.783                |
| Hardware - NU385 ESB SOF (BSO 24) Cost                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 6.1.1) ESB SOF (BSO 24) <sup>(7)</sup>                                                         | -                   | -             | 3.329                | -                   | -             | 0.677                                                                   | -                   | -             | 0.539                | -                   | -             | 2.790                                                               | -                   | -             | -                    | -                   | -             | 2.790                |
| 6.1.2) ESB SOF Install <sup>(8)</sup>                                                          | -                   | -             | 4.701                | -                   | -             | -                                                                       | -                   | -             | -                    | -                   | -             | 5.148                                                               | -                   | -             | -                    | -                   | -             | 5.148                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 8.030                | -                   | -             | 0.677                                                                   | -                   | -             | 0.539                | -                   | -             | 7.938                                                               | -                   | -             | -                    | -                   | -             | 7.938                |
| Subtotal: Hardware - NU385 ESB SOF (BSO 24) Cost                                               | -                   | -             | 8.030                | -                   | -             | 0.677                                                                   | -                   | -             | 0.539                | -                   | -             | 7.938                                                               | -                   | -             | -                    | -                   | -             | 7.938                |
| Support - NU777 Installations FMP Cost                                                         |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 7.1) EPLRS-DR FMP                                                                              | -                   | -             | 0.010                | -                   | -             | 0.734                                                                   | -                   | -             | 1.498                | -                   | -             | 1.526                                                               | -                   | -             | -                    | -                   | -             | 1.526                |
| 7.2) BFTN Installations FMP <sup>(9)</sup>                                                     | -                   | -             | 6.284                | -                   | -             | 2.029                                                                   | -                   | -             | -                    | -                   | -             | 5.438                                                               | -                   | -             | -                    | -                   | -             | 5.438                |
| Subtotal: Support - NU777 Installations FMP Cost                                               | -                   | -             | 6.294                | -                   | -             | 2.763                                                                   | -                   | -             | 1.498                | -                   | -             | 6.964                                                               | -                   | -             | -                    | -                   | -             | 6.964                |
| Support - NU777 DSA Cost                                                                       |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 8.1) EPLRS-DR DSA/ PRE Shore Installation Design                                               | -                   | -             | -                    | -                   | -             | 0.294                                                                   | -                   | -             | 0.556                | -                   | -             | 0.475                                                               | -                   | -             | -                    | -                   | -             | 0.475                |
| 8.2) BFTN DSA <sup>(10)</sup>                                                                  | -                   | -             | 2.221                | -                   | -             | 0.339                                                                   | -                   | -             | -                    | -                   | -             | 1.522                                                               | -                   | -             | -                    | -                   | -             | 1.522                |
| Subtotal: Support - NU777 DSA Cost                                                             | -                   | -             | 2.221                | -                   | -             | 0.633                                                                   | -                   | -             | 0.556                | -                   | -             | 1.997                                                               | -                   | -             | -                    | -                   | -             | 1.997                |
| Support - NU555 Production Support Cost                                                        |                     |               |                      |                     |               |                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                      |
| 9.1) EPLRS-DR Production Support                                                               | -                   | -             | 0.290                | -                   | -             | 0.011                                                                   | -                   | -             | 0.048                | -                   | -             | 0.052                                                               | -                   | -             | -                    | -                   | -             | 0.052                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      | Date: February 2018                                                 |               |                      |                     |               |                      |
|------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|-------------------------------------------------------------------------|---------------|----------------------|---------------------|---------------|----------------------|---------------------------------------------------------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 11                      |                     |               |                      |                     |               |                      | P-1 Line Item Number / Title:<br>3057 / Communications Items under \$5M |               |                      |                     |               |                      | Item Number / Title [DODIC]:<br>1 / Communications Items under \$5M |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                      |                                                                         |               |                      | MDAP/MAIS Code:     |               |                      |                                                                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                      |                                                                         |               |                      |                     |               |                      |                                                                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                      | FY 2018                                                                 |               |                      | FY 2019 Base        |               |                      | FY 2019 OCO                                                         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                     | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K)                                                 | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 9.2) PORT NSW Production Support                                                               | -                   | -             | 3.127                | -                   | -             | 0.212                | -                                                                       | -             | 0.224                | -                   | -             | 0.145                | -                                                                   | -             | -                    | -                   | -             | 0.145                |
| 9.4) BFTN Production Support                                                                   | -                   | -             | 1.120                | -                   | -             | 0.057                | -                                                                       | -             | -                    | -                   | -             | 0.213                | -                                                                   | -             | -                    | -                   | -             | 0.213                |
| 9.5) Consolidated Prior Year Requirements <sup>(11)</sup>                                      | -                   | -             | 43.525               | -                   | -             | -                    | -                                                                       | -             | -                    | -                   | -             | -                    | -                                                                   | -             | -                    | -                   | -             | -                    |
| Subtotal: Support - NU555 Production Support Cost                                              | -                   | -             | 48.062               | -                   | -             | 0.280                | -                                                                       | -             | 0.272                | -                   | -             | 0.410                | -                                                                   | -             | -                    | -                   | -             | 0.410                |
| Gross/Weapon System Cost                                                                       | -                   | -             | 132.012              | -                   | -             | 10.077               | -                                                                       | -             | 18.577               | -                   | -             | 41.123               | -                                                                   | -             | 0.000                | -                   | -             | 41.123               |

(t) indicates the presence of a P-5a

## Footnotes:

- (1) Funding in FY19 includes procurement and installation for Enhanced Position Location reporting System - Data Radio (EPLRS-DR), Enhanced Man-Pack UHF Tactical (EMUT) MUOS antennas, and Landing Force Iridium to meet Marine Embarked Units (MEU) to support HF/UHF communications between the Landing Force Operations Center (LFOC) and Marines ashore to ensure interoperability between the Navy and Marine Corps. The quantity procured and installed (in any given year) is determined by the fleet's demand signal and platform availability and leverages the ISEA to combine installs.
- (2) FY19 Increase due to equipment required for US Navy Special Forces End Strength Growth
- (3) PORT NSW Hand Held and Man Pack radios do not require installation, also FY19 increase due to equipment required for US Navy Special Forces End Strength Growth.
- (4) Funding in FY19 is for the procurement of twelve (12) Battle Force Tactical Network (BFTN) systems required to meet emerging communications threat environment.
- (5) Funding in FY19 for engineering changes required to strengthen cyber security posture by implementing WIN 10 upgrades on previously fielded BFTN systems.
- (6) Quantities are not provided since various communications and Automated Data Processing equipment is being procured. Increase reflects establishment, approval and funding of NSW service-common Table Of Allowance to begin correcting shortfalls and bring NSW forces into alignment with required outfitting standards in accordance with SOCOM-USN Memorandum of Agreement (MOU).
- (7) Quantities are not provided since various equipment is being procured to provide Special Operations Forces (SOF) capability on Expeditionary Mobile Base (ESB) 4. Cost increase is to procure remaining SOF components to include several VHF and UHF antennas to be installed during the boats Post Shakedown Availability.
- (8) The installations costs are being broken out for transparency. The last time an installation occurred was in FY16. In FY 16 the installation cost (for ESB 3) were included in the recurring cost.
- (9) Funding in FY19 is for the installation of twelve (12) BFTN systems required to meet emerging communications threat environment.
- (10) Funding in FY19 is for the procurement and installation of twelve (12) BFTN systems required to meet emerging communications threat environment.
- (11) Consolidated prior years for PORT RAD - Hand Held Procurement, Hydra Procurement, NAVSEA HYDRA Requirement, DAMA IW Procurement, Hydra Installations FMP, HF SAR Installations FMP, and Navy Expeditionary C4I Production Support

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |                      |           |                                                                                |                                               |                        |                       |                                       |                       | <b>Date:</b> February 2018                                                 |                                 |                                        |                           |
|----------------------------------------------------------------------------------|----------------------|-----------|--------------------------------------------------------------------------------|-----------------------------------------------|------------------------|-----------------------|---------------------------------------|-----------------------|----------------------------------------------------------------------------|---------------------------------|----------------------------------------|---------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 11 |                      |           | <b>P-1 Line Item Number / Title:</b><br>3057 / Communications Items under \$5M |                                               |                        |                       |                                       |                       | <b>Item Number / Title [DODIC]:</b><br>1 / Communications Items under \$5M |                                 |                                        |                           |
| <b>Cost Elements</b>                                                             | <b>O<br/>C<br/>O</b> | <b>FY</b> | <b>Contractor and Location</b>                                                 | <b>Method/Type<br/>or<br/>Funding Vehicle</b> | <b>Location of PCO</b> | <b>Award<br/>Date</b> | <b>Date<br/>of First<br/>Delivery</b> | <b>Qty<br/>(Each)</b> | <b>Unit Cost<br/>(\$ K)</b>                                                | <b>Specs<br/>Avail<br/>Now?</b> | <b>Date<br/>Revision<br/>Available</b> | <b>RFP Issue<br/>Date</b> |
| 1.1.1) EPLRS-DR Procurement                                                      |                      | 2017      | Harris Corporation / Rochester, NY                                             | C / FFP                                       | SPAWAR                 | Dec 2016              | May 2017                              | 2                     | 135.000                                                                    | Y                               |                                        | Jun 2016                  |
| 1.1.1) EPLRS-DR Procurement                                                      |                      | 2018      | Harris Corporation / Rochester, NY                                             | C / FFP                                       | SPAWAR                 | Dec 2017              | May 2018                              | 8                     | 143.125                                                                    | Y                               |                                        | Jun 2017                  |
| 1.1.1) EPLRS-DR Procurement                                                      |                      | 2019      | Harris Corporation / Rochester, NY                                             | C / FFP                                       | SPAWAR                 | Dec 2018              | May 2019                              | 8                     | 142.625                                                                    | Y                               |                                        | Jun 2018                  |
| 3.1.1) PORT NSW Hand Held Procurement                                            |                      | 2017      | Harris Corporation / Rochester, NY                                             | C / FFP                                       | SPAWAR                 | May 2017              | Oct 2017                              | 137                   | 15.117                                                                     | Y                               |                                        |                           |
| 3.1.1) PORT NSW Hand Held Procurement                                            |                      | 2018      | Unknown / Unknown                                                              | C / FFP                                       | SPAWAR                 | Dec 2017              | May 2018                              | 136                   | 15.725                                                                     | Y                               |                                        |                           |
| 3.1.1) PORT NSW Hand Held Procurement                                            |                      | 2019      | Unknown / Unknown                                                              | C / FFP                                       | SPAWAR                 | Dec 2018              | May 2019                              | 266                   | 15.714                                                                     | Y                               |                                        |                           |
| 3.1.2) PORT NSW Man Pack Procurement                                             |                      | 2017      | Harris Corporation / Rochester, NY                                             | C / FFP                                       | SPAWAR                 | May 2017              | Oct 2017                              | 65                    | 37.350                                                                     | Y                               |                                        |                           |
| 3.1.2) PORT NSW Man Pack Procurement                                             |                      | 2018      | Unknown / Unknown                                                              | C / FFP                                       | SPAWAR                 | Dec 2017              | May 2018                              | 61                    | 38.089                                                                     | Y                               |                                        |                           |
| 3.1.2) PORT NSW Man Pack Procurement                                             |                      | 2019      | Unknown / Unknown                                                              | C / FFP                                       | SPAWAR                 | Dec 2018              | May 2019                              | 106                   | 38.850                                                                     | Y                               |                                        |                           |
| 4.1.1) BFTN System Procurement                                                   |                      | 2017      | Leidos / Reston, VA                                                            | C / FFP                                       | SPAWAR                 | Jun 2017              | Oct 2017                              | 4                     | 238.778                                                                    | Y                               |                                        | Aug 2011                  |
| 4.1.1) BFTN System Procurement                                                   |                      | 2019      | Unknown / Unknown                                                              | TBD                                           | SPAWAR                 | Jan 2019              | May 2019                              | 12                    | 291.000                                                                    | N                               |                                        |                           |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                                   |                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|

|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years   | FY 2017       | FY 2018       | FY 2019 Base  | FY 2019 OCO  | FY 2019 Total | FY 2020       | FY 2021       | FY 2022       | FY 2023       | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 49.339        | 31.068        | 44.669        | 30.897        | 0.000        | 30.897        | 57.239        | 61.701        | 61.577        | 38.656        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 49.339        | 31.068        | 44.669        | 30.897        | 0.000        | 30.897        | 57.239        | 61.701        | 61.577        | 38.656        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>49.339</b> | <b>31.068</b> | <b>44.669</b> | <b>30.897</b> | <b>0.000</b> | <b>30.897</b> | <b>57.239</b> | <b>61.701</b> | <b>61.577</b> | <b>38.656</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |               |               |               |               |              |               |               |               |               |               |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -             | 0.030         | 0.064         | 0.121         | -            | 0.121         | 0.054         | 0.056         | 0.055         | 0.056         | Continuing        | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                  | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -             | -             | -             | -             | -            | -             | -             | -             | -             | -             | -                 | -                 |

## Description:

The Submarine Broadcast program modernizes communication elements which support Navy Nuclear Command, Control, and Communications (NC3) strategic requirements, connecting the President of the United States (POTUS) and senior leadership with the ability to send (NC3) Emergency Action Messages (EAMs) to Ballistic Missile Submarines (SSBN) and tactical National level tasking to deployed Attack Submarines (SSN) and Guided Missile Submarines (SSGN) operating covertly around the globe via the Fixed Submarine Broadcast System (FSBS). This portfolio provides integration, production and installations for shore-to-ship transmit and receive communications systems.

[P3A / W4010 Legacy NC3 NMHS]: FY14-FY18 Legacy Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS): The Legacy NC3 NMHS messaging hardware and software will provide accurate and reliable delivery of time-critical messages for command and control of nuclear forces in a pre-attack environment for force direction, force management, situation monitoring and planning. The NC3 NMHS hardware and software upgrade at all sites will replace Navy Information eXchange Terminal(NIXT) at shore communications stations supporting NC3.

(P5 / W4010 NC3 NMHS Technical Refresh - FY19-FY23 Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS) is the modernization of the Nova Software and NIXT hardware to eliminate obsolesce issues, address cyber security vulnerabilities, and enable Network Defense and Network Monitoring functions.

[P5 / W4009 Low Band Universal Communications System (LBUCS), Receive]: LBUCS will upgrade receive subsystems of Fixed Submarine Broadcast Systems (FSBS), which are approaching their operational end of life. LBUCS will ensure operational capability through the VLF architecture by providing system life extension and flexibility of submarine broadcast reception to submarines operating in a stealth posture. Unit costs for procurement and installation of LBUCS Receive vary due to unique platform and equipment configurations.

[P5 / W4011 Submarine Operating Authority (SUBOPAUTH)]: SUBOPAUTH will modernize and standardize the aging command, control and communication (C3) infrastructure and several critical C3 systems at all seven worldwide Broadcast Control Authority (BCA) sites made up of four regional SUBOPAUTH BCA sites and three Take Charge and Move Out (TACAMO) BCA sites. Different equipment is procured and installed each fiscal year and varies by site.

[P5 / W4012 Take Charge and Move Out (TACAMO)]: TACAMO's primary mission is to receive and retransmit EAMs to United States strategic forces. The TACAMO Ground Communication Program will procure the necessary fixed and mobile communications equipment to support the TACAMO mission each fiscal year. For this reason, different systems will be procured from year to year. In FY18 TACAMO will procure two (2) High Electromagnetic Pulse (HEMP) protected Extremely High Frequency (EHF) mobile shelters. In FY19 TACAMO will procure the first Mobile Advanced Extremely High Frequency (AEHF) Terminal (MAT) and fund the associated Non-Recurring Engineering (NRE) efforts.

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                               | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                               | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                 |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                               |                                                                            |
| <p>[P3A / W4008 Transmission Equipment]: Transmission Equipment consists of two (2) major systems, Antennas and Transmitters, which are located at ten (10) Broadcast Transmitter Stations (BTS) sites worldwide. Transmission Equipment program modernizes the aging and obsolete equipment of the submarine broadcast transmission systems, which include the high power transmitters and antennas located at the Broadcast Transmitter Station (BTS) sites. Different equipment are procured each year for this effort depending on modernization requirements. In FY18, one (1) Bushing, one (1) Insulator, one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing, one (1) AN/FRT-95 Conversion to AN/FRT-95D, four (4) Network Tech Upgrade Kits, four (4) Solid-State Variable PA Plate Power Supplies, and (1) UV Arc Sensor were procured. In support of the replacement of the damaged Fixed Submarine Broadcast System (FSBS) antenna and transmitter at the NRTF Aguada, PR site, the Tower Lighting Isolation Transformer (TLIT) Base Housing, the AN/FRT-95 Conversion to AN/FRT-95D and the Insulator were procured in FY18 with the FY18 Hurricane Amendment funding. In FY19, one (1) Base Insulator Assembly (BIA), one (1) Bushing, one (1) Insulator, one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing, two (2) Auto-tune Power Amplifiers, two (2) Auto-tune Systems, two (2) Tap Changer Under Load (TCUL) Transformers, and one (1) Transmission Line Impedance Matching Network (TLZN) will be procured.</p> <p>[P3A - 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit]: LBUCS Transmit will modernize the low power transmit subsystem hardware, software and waveform components at Broadcast Transmitter Stations (BTS) and Broadcast Control Authority (BCA) sites including the VLF Broadcast Builder, AN/URT-30B Integrated VLF Transmit Terminal (IVTT), IVTT Proxy, the MD-1310, MD-1315, and MD-1316 Modulators, and the North Atlantic Treaty Organization (NATO) Interoperable Submarine Broadcast System (NISBS). Production costs for LBUCS equipment vary due to unique site configurations. Cost and duration for LBUCS Broadcast Control Authority (BCA) installations are greater than Broadcast Transmitter Stations (BTS) due to complexity of the BCA system. Install costs for BCA equipment vary due to unique site configuration and mix of CONUS and OCONUS locations.</p> |                                               |                                                                            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy | <b>Date:</b> February 2018 |
|-------------------------------------------------------------------|----------------------------|

|                                                                                                                                                                                   |                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|

|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

|                                      |
|--------------------------------------|
| <b>Line Item MDAP/MAIS Code:</b> N/A |
|--------------------------------------|

| Exhibits Schedule |                                                                                                        |             |       |                | Prior Years                              | FY 2017                                  | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
|-------------------|--------------------------------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                                                 | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5               | 1 / Submarine Broadcast Support                                                                        | P-5a        |       |                | - / 0.000                                | - / 4.645                                | - / 9.410                                | - / 17.939                               | - / 0.000                                | - / 17.939                               |
| P-3a              | 1 / W4008 Transmission Equipment (TBD)                                                                 |             |       |                | - / 27.350                               | - / 5.818                                | - / 24.165                               | - / 12.391                               | - / 0.000                                | - / 12.391                               |
| P-3a              | 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit (TBD)                              |             |       |                | - / 10.658                               | - / 10.004                               | - / 2.613                                | - / 0.567                                | - / 0.000                                | - / 0.567                                |
| P-3a              | 3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) (TBD) |             |       |                | - / 11.331                               | - / 10.601                               | - / 8.481                                | - / 0.000                                | - / 0.000                                | - / 0.000                                |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                                                  |             |       |                | <b>- / 49.339</b>                        | <b>- / 31.068</b>                        | <b>- / 44.669</b>                        | <b>- / 30.897</b>                        | <b>- / 0.000</b>                         | <b>- / 30.897</b>                        |

| Exhibits Schedule |                                                                                                        |             |       |                | FY 2020                                  | FY 2021                                  | FY 2022                                  | FY 2023                                  | To Complete                              | Total                                    |
|-------------------|--------------------------------------------------------------------------------------------------------|-------------|-------|----------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Exhibit Type      | Title*                                                                                                 | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-5               | 1 / Submarine Broadcast Support                                                                        | P-5a        |       |                | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    | - / -                                    |
| P-3a              | 1 / W4008 Transmission Equipment (TBD)                                                                 |             |       |                | - / 14.050                               | - / 14.130                               | - / 14.935                               | - / 14.589                               | - / 2.376                                | - / 129.804                              |
| P-3a              | 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit (TBD)                              |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 23.842                               |
| P-3a              | 3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) (TBD) |             |       |                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 0.000                                | - / 30.413                               |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                                                  |             |       |                | <b>- / 57.239</b>                        | <b>- / 61.701</b>                        | <b>- / 61.577</b>                        | <b>- / 38.656</b>                        | <b>Continuing</b>                        | <b>Continuing</b>                        |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

LBUCS Receive: FY19 funding will provide for the procurement and installation of LBUCS Receive shore and submarine units.

LBUCS Transmit: FY19 funding will provide for the installation of LBUCS Transmit units.

Submarine Operating Authority (SUBOPAUTH): FY19 funding will provide for the procurement of the BCA sites; and for the installation of SUBOPAUTH Modernization Unified Computing System (UCS) at seven worldwide Broadcast Control Authority (BCA) sites made up of four regional SUBOPAUTH BCA sites and three Take Charge and Move Out (TACAMO) BCA sites.

Take Charge and Move Out (TACAMO): FY19 funding will provide for the procurement of the first Mobile Advanced Extremely High Frequency (AEHF) Terminal (MAT) and associated Non-Recurring Engineering (NRE) efforts to support the Navy's TACAMO mission.

Transmission Equipment: FY19 funding will provide eleven (11) procurements and seven (7) installations at five (5) different Broadcast Transmitter Station (BTS) sites. Procurement and Installation unit costs vary due to procuring and installing different equipment each fiscal year. FY18 procured one (1) Bushing, one (1) Insulator, one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing, one (1) AN/FRT-95 Conversion to AN/FRT-95D, four (4) Network Tech Upgrade Kits, four (4) Solid-State Variable PA Plate Power Supplies, and (1) UV Arc Sensor. \$15.000 million added in FY18 to address the replacement of the Hurricane Maria damaged Fixed Submarine Broadcast System (FSBS) antenna and transmitter at the NRTF Aguada, PR site, the Tower Lighting Isolation Transformer (TLIT) Base Housing, the AN/FRT-95 Conversion to AN/FRT-95D and the Insulator were procured in FY18 with the FY18 Hurricane Amendment funding. FY19 will procure one (1) Base Insulator Assembly (BIA), one (1) Bushing, one (1)

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                               | <b>Date:</b> February 2018                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications                                                                                                                                                                                                                                                                                                                       |                                               | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                 |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><br>Insulator, one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing, two (2) Auto-tune Power Amplifiers, two (2) Auto-tune Systems, two (2) Tap Changer Under Load (TCUL) Transformers, and one (1) Transmission Line Impedance Matching Network (TLZN).<br><br>FY19 funding - Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS) Technical Refresh: Fielding the NC3 NMHS modernized system at all shore sites. |                                               |                                                                            |



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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               | Date: February 2018                                             |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12                                                              |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3107 / Submarine Broadcast Support |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Submarine Broadcast Support |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                                                                     |                     |               |                      | MDAP/MAIS Code:     |               |                                                                 |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017                                                             |                     | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO                                                     |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                                                                   |                     | -             |                      | -                   |               | -                                                               |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 0.000               |               | 4.645                                                               |                     | 9.410         |                      | 17.939              |               | 0.000                                                           |                     | 17.939        |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                   |                     | -             |                      | -                   |               | -                                                               |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 0.000               |               | 4.645                                                               |                     | 9.410         |                      | 17.939              |               | 0.000                                                           |                     | 17.939        |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                   |                     | -             |                      | -                   |               | -                                                               |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 0.000               |               | 4.645                                                               |                     | 9.410         |                      | 17.939              |               | 0.000                                                           |                     | 17.939        |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | -                                                                   |                     | -             |                      | -                   |               | -                                                               |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                                                                   |                     | -             |                      | -                   |               | -                                                               |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                                                                     | FY 2018             |               |                      | FY 2019 Base        |               |                                                                 | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                            | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - W4009 Low Band Universal Communications System (LBUCS), Receive Cost                                                        |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| 1.1.1) W4009 LBUCS Receive <sup>(1)</sup> <sup>(1)</sup>                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | 107.496             | 17            | 1.827                | 86.399              | 16            | 1.382                                                           | -                   | -             | 0.000                | 86.399              | 16            | 1.382                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 1.827                | -                   | -             | 1.382                                                           | -                   | -             | 0.000                | -                   | -             | 1.382                |
| Subtotal: Hardware - W4009 Low Band Universal Communications System (LBUCS), Receive Cost                                              | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 1.827                | -                   | -             | 1.382                                                           | -                   | -             | 0.000                | -                   | -             | 1.382                |
| Hardware - Installations - W4009 Low Band Universal Communications System (LBUCS), Receive Cost                                        |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| 2.1.1) LBUCS Receive Installation Ashore (W4776) <sup>(2)</sup>                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 0.274                                                           | -                   | -             | 0.000                | -                   | -             | 0.274                |
| 2.1.2) LBUCS Receive Installation Afloat (W4777) <sup>(3)</sup>                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 0.129                                                           | -                   | -             | 0.000                | -                   | -             | 0.129                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 0.403                                                           | -                   | -             | 0.000                | -                   | -             | 0.403                |
| Subtotal: Hardware - Installations - W4009 Low Band Universal Communications System (LBUCS), Receive Cost                              | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 0.403                                                           | -                   | -             | 0.000                | -                   | -             | 0.403                |
| Hardware - W4011 Submarine Operating Authority (SUBOPAUTH) Cost                                                                        |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                        |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     | Date: February 2018 |                                                                 |                     |               |                      |                     |               |                      |
|-------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|---------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------------|-----------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12                       |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3107 / Submarine Broadcast Support |                     |               |                      |                     |                     | Item Number / Title [DODIC]:<br>1 / Submarine Broadcast Support |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                |                     |               |                      |                     |               |                                                                     |                     |               |                      | MDAP/MAIS Code:     |                     |                                                                 |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.  |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                   | Prior Years         |               |                      | FY 2017             |               |                                                                     | FY 2018             |               |                      | FY 2019 Base        |                     |                                                                 | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                 | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)       | Total Cost<br>(\$ M)                                            | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 3.1.1) Submarine Operating Authority (SUBOPAUTH) <sup>(†) (4)</sup>                             | -                   | -             | 0.000                | 343.750             | 4             | 1.375                                                               | 288.100             | 9             | 2.593                | 633.000             | 4                   | 2.532                                                           | -                   | -             | 0.000                | 633.000             | 4             | 2.532                |
| Subtotal: Recurring Cost                                                                        | -                   | -             | 0.000                | -                   | -             | 1.375                                                               | -                   | -             | 2.593                | -                   | -                   | 2.532                                                           | -                   | -             | 0.000                | -                   | -             | 2.532                |
| Subtotal: Hardware - W4011 Submarine Operating Authority (SUBOPAUTH) Cost                       | -                   | -             | 0.000                | -                   | -             | 1.375                                                               | -                   | -             | 2.593                | -                   | -                   | 2.532                                                           | -                   | -             | 0.000                | -                   | -             | 2.532                |
| Hardware - W4776 Shore Installations - Submarine Operating Authority (SUBOPAUTH) Cost           |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                  |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| 4.1.1) SUBOPAUTH Shore Installation <sup>(5)</sup>                                              | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 1.121                | -                   | -                   | 1.525                                                           | -                   | -             | 0.000                | -                   | -             | 1.525                |
| Subtotal: Recurring Cost                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 1.121                | -                   | -                   | 1.525                                                           | -                   | -             | 0.000                | -                   | -             | 1.525                |
| Subtotal: Hardware - W4776 Shore Installations - Submarine Operating Authority (SUBOPAUTH) Cost | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 1.121                | -                   | -                   | 1.525                                                           | -                   | -             | 0.000                | -                   | -             | 1.525                |
| Hardware - W4012 Take Charge and Move Out (TACAMO) Cost                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                  |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| 5.1.1) W4012 Take Charge and Move Out (TACAMO) <sup>(†) (6)</sup>                               | -                   | -             | 0.000                | 1,962.000           | 1             | 1.962                                                               | 1,491.000           | 2             | 2.982                | 3,122.000           | 1                   | 3.122                                                           | -                   | -             | 0.000                | 3,122.000           | 1             | 3.122                |
| Subtotal: Recurring Cost                                                                        | -                   | -             | 0.000                | -                   | -             | 1.962                                                               | -                   | -             | 2.982                | -                   | -                   | 3.122                                                           | -                   | -             | 0.000                | -                   | -             | 3.122                |
| Subtotal: Hardware - W4012 Take Charge and Move Out (TACAMO) Cost                               | -                   | -             | 0.000                | -                   | -             | 1.962                                                               | -                   | -             | 2.982                | -                   | -                   | 3.122                                                           | -                   | -             | 0.000                | -                   | -             | 3.122                |
| Hardware - W4010 - NC3 NMHS Technical Refresh Cost                                              |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                  |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| 6.1.1) NC3 NMHS Technical Refresh <sup>(†) (7)</sup>                                            | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | 155.538             | 13                  | 2.022                                                           | -                   | -             | 0.000                | 155.538             | 13            | 2.022                |
| Subtotal: Recurring Cost                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -                   | 2.022                                                           | -                   | -             | 0.000                | -                   | -             | 2.022                |
| Subtotal: Hardware - W4010 - NC3 NMHS Technical Refresh Cost                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -                   | 2.022                                                           | -                   | -             | 0.000                | -                   | -             | 2.022                |
| Hardware - W4776 - NC3 NMHS Technical Refresh Ashore Installation Cost                          |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                  |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |                     |                                                                 |                     |               |                      |                     |               |                      |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 | Date: February 2018 |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12                      |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3107 / Submarine Broadcast Support |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Submarine Broadcast Support |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                                     |                     |               | MDAP/MAIS Code:      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                                     | FY 2018             |               |                      | FY 2019 Base        |               |                                                                 | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                            | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 7.1.1) NC3 NMHS Technical Refresh Ashore Installation <sup>(8)</sup>                           | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 1.981                                                           | -                   | -             | 0.000                | -                   | -             | 1.981                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 1.981                                                           | -                   | -             | 0.000                | -                   | -             | 1.981                |
| Subtotal: Hardware - W4776 - NC3 NMHS Technical Refresh Ashore Installation Cost               | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 1.981                                                           | -                   | -             | 0.000                | -                   | -             | 1.981                |
| Support - Support Cost                                                                         |                     |               |                      |                     |               |                                                                     |                     |               |                      |                     |               |                                                                 |                     |               |                      |                     |               |                      |
| 9.1) LBUCS Receive Production Support                                                          | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.149                | -                   | -             | 0.146                                                           | -                   | -             | 0.000                | -                   | -             | 0.146                |
| 9.2) LBUCS Receive Economic Change Requests                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.300                | -                   | -             | 0.200                                                           | -                   | -             | 0.000                | -                   | -             | 0.200                |
| 9.3) LBUCS Receive DSA                                                                         | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.200                | -                   | -             | 0.300                                                           | -                   | -             | 0.000                | -                   | -             | 0.300                |
| 9.4) SUBOPAETH Production Support                                                              | -                   | -             | 0.000                | -                   | -             | 0.188                                                               | -                   | -             | 0.238                | -                   | -             | 0.019                                                           | -                   | -             | 0.000                | -                   | -             | 0.019                |
| 9.5) SUBOPAETH Non Recurring Engineering                                                       | -                   | -             | 0.000                | -                   | -             | 1.014                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                           | -                   | -             | 0.000                | -                   | -             | 0.000                |
| 9.6) TACAMO Production Support                                                                 | -                   | -             | 0.000                | -                   | -             | 0.106                                                               | -                   | -             | 0.000                | -                   | -             | 0.183                                                           | -                   | -             | 0.000                | -                   | -             | 0.183                |
| 9.7) TACAMO Non Recurring Engineering <sup>(9)</sup>                                           | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 4.000                                                           | -                   | -             | 0.000                | -                   | -             | 4.000                |
| 9.9) NC3 NMHS Technical Refresh Production Support                                             | -                   | -             | 0.000                | -                   | -             | 0.000                                                               | -                   | -             | 0.000                | -                   | -             | 0.124                                                           | -                   | -             | 0.000                | -                   | -             | 0.124                |
| Subtotal: Support - Support Cost                                                               | -                   | -             | 0.000                | -                   | -             | 1.308                                                               | -                   | -             | 0.887                | -                   | -             | 4.972                                                           | -                   | -             | 0.000                | -                   | -             | 4.972                |
| Gross/Weapon System Cost                                                                       | -                   | -             | 0.000                | -                   | -             | 4.645                                                               | -                   | -             | 9.410                | -                   | -             | 17.939                                                          | -                   | -             | 0.000                | -                   | -             | 17.939               |

(†) indicates the presence of a P-5a

Footnotes:

(1) Unit costs for Low Band Universal Communications Systems (LBUCS) Receive equipment vary due to economic order quantities and learning curve as well as inflation adjustments. Delays to procurement schedule are associated with system of systems integration delays.

(2) Ashore install costs for LBUCS Receive equipment vary due to unique site and system configurations at a mix of Continental United States (CONUS) and Outside of the Continental United States (OCONUS) locations. For example, OCONUS (Japan, England, Italy, and Hawaii) install costs are higher due to international coordination, travel and shipping.

(t) indicates the presence of a P-5a

**Footnotes:**

(1) Unit costs for Low Band Universal Communications Systems (LBUCS) Receive equipment vary due to economic order quantities and learning curve as well as inflation adjustments. Delays to procurement schedule are associated with system of systems integration delays.

(2) Ashore install costs for LBUCS Receive equipment vary due to unique site and system configurations at a mix of Continental United States (CONUS) and Outside of the Continental United States (OCONUS) locations. For example, OCONUS (Japan, England, Italy, and Hawaii) install costs are higher due to international coordination, travel and shipping.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                            | <b>Date:</b> February 2018                                             |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support | <b>Item Number / Title [DODIC]:</b><br>1 / Submarine Broadcast Support |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                            | <b>MDAP/MAIS Code:</b>                                                 |
| <p><sup>(3)</sup> Afloat install costs for LBUCS Receive equipment vary due to varying platform (five different classes of submarines) and system configurations. For example, an SSBN requires three units installed while an SSN requires one, making the install cost lower on a per-receiver basis for an SSBN due to consolidated labor efforts.</p> <p><sup>(4)</sup> Submarine Operating Authority (SUBOPAUTH) equipment procurement costs vary due to unique equipment configurations and different equipment being procured each year. FY18 procures nine (9) SOA Modernization Unified Computing Systems (UCS). FY19 will procure remaining two (2) SOA Modernization UCS with an average unit cost of \$306K and two (2) Keyboard Video Mouse (KVM) modernization units, which provide human-machine interface (HMI) and have an average unit cost of \$960K.</p> <p><sup>(5)</sup> Submarine Operating Authority (SUBOPAUTH) equipment installation costs vary due to unique equipment configurations at each site. FY19 will install SOA modernization UCS.</p> <p><sup>(6)</sup> Unit cost fluctuates because the Take Charge and Move Out (TACAMO) program procures different systems each fiscal year. In FY18 TACAMO will procure two (2) HEMP protected EHF mobile shelters. In FY19 TACAMO will procure the first Mobile Advanced Extremely High Frequency (AEHF) Terminal (MAT) and fund the associated Non-Recurring Engineering (NRE) efforts. Installation costs are not applicable to the EHF mobile shelters or to MAT as these systems are delivered turnkey.</p> <p><sup>(7)</sup> NC3 NMHS hardware and software upgrades at all sites to enable enterprise Network Monitoring (NETMon), enterprise Computer Network Defense (CND), and Cyber situational awareness tools to correlate cyber threats in the FSBS network and map the best path to deliver EAMs. Quantity represents Various Sites. (4 Hub, 2 Monitor, 7 Spoke)</p> <p><sup>(8)</sup> Unit cost fluctuation is due to procurement of variable systems to support SW/HW configurations &amp; the addition of Network Monitoring/Computer Network Defense (NETMon/CND) capability requirement to meet cyber security requirements. Quantities represent various sites. (4 Hub, 2 Monitor, 7 Spoke) Installation costs vary due to unique site configurations.</p> <p><sup>(9)</sup> TACAMO Non-Recurring Engineering (NRE) costs include start up efforts to establish a production capability for the terminals as well as engineering of the HEMP hardened transit cases, HEMP filter selection, component integration, testing, production design data and documentation.</p> |                                                                            |                                                                        |

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |                      |           |                                                                            |                                               |                        |                       |                                       | <b>Date:</b> February 2018                                             |                             |                                 |                                        |                           |
|----------------------------------------------------------------------------------|----------------------|-----------|----------------------------------------------------------------------------|-----------------------------------------------|------------------------|-----------------------|---------------------------------------|------------------------------------------------------------------------|-----------------------------|---------------------------------|----------------------------------------|---------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                      |           | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |                                               |                        |                       |                                       | <b>Item Number / Title [DODIC]:</b><br>1 / Submarine Broadcast Support |                             |                                 |                                        |                           |
| <b>Cost Elements</b>                                                             | <b>O<br/>C<br/>O</b> | <b>FY</b> | <b>Contractor and Location</b>                                             | <b>Method/Type<br/>or<br/>Funding Vehicle</b> | <b>Location of PCO</b> | <b>Award<br/>Date</b> | <b>Date<br/>of First<br/>Delivery</b> | <b>Qty<br/>(Each)</b>                                                  | <b>Unit Cost<br/>(\$ K)</b> | <b>Specs<br/>Avail<br/>Now?</b> | <b>Date<br/>Revision<br/>Available</b> | <b>RFP Issue<br/>Date</b> |
| 1.1.1) W4009 LBUCS Receive                                                       |                      | 2018      | SSC PAC / San Diego, CA                                                    | WR                                            | San Diego, CA          | May 2018              | Sep 2018                              | 17                                                                     | 107.496                     | Y                               |                                        |                           |
| 1.1.1) W4009 LBUCS Receive                                                       |                      | 2019      | SSC PAC / San Diego, CA                                                    | WR                                            | San Diego, CA          | Jun 2019              | Oct 2019                              | 16                                                                     | 86.399                      | Y                               |                                        |                           |
| 3.1.1) Submarine Operating Authority (SUBOPAUTH)                                 |                      | 2017      | SSC LANT / Charleston, SC                                                  | C / IDIQ                                      | Charleston, SC         | Jul 2017              | Oct 2017                              | 4                                                                      | 343.750                     | Y                               |                                        |                           |
| 3.1.1) Submarine Operating Authority (SUBOPAUTH)                                 |                      | 2018      | SSC LANT / Charleston, SC                                                  | C / IDIQ                                      | Charleston, SC         | Mar 2018              | Jun 2018                              | 9                                                                      | 288.100                     | Y                               |                                        |                           |
| 3.1.1) Submarine Operating Authority (SUBOPAUTH)                                 |                      | 2019      | SSC LANT / Charleston, SC                                                  | C / IDIQ                                      | Charleston, SC         | Mar 2019              | Jun 2019                              | 4                                                                      | 633.000                     | Y                               |                                        |                           |
| 5.1.1) W4012 Take Charge and Move Out (TACAMO)                                   |                      | 2017      | Gaven Shielding Services / Saxonburg, PA                                   | C / FFP                                       | San Diego, CA          | Sep 2017              | Sep 2018                              | 1                                                                      | 1,962.000                   | Y                               |                                        | Jul 2017                  |
| 5.1.1) W4012 Take Charge and Move Out (TACAMO)                                   |                      | 2018      | Gaven Shielding Services / Saxonburg, PA                                   | C / CPFF                                      | TBD                    | Nov 2017              | Sep 2018                              | 2                                                                      | 1,491.000                   | Y                               |                                        | Jul 2017                  |
| 5.1.1) W4012 Take Charge and Move Out (TACAMO)                                   |                      | 2019      | Gaven Shielding Services / Saxonburg, PA                                   | C / FFP                                       | TBD                    | Dec 2018              | Oct 2019                              | 1                                                                      | 3,122.000                   | N                               | Feb 2018                               | Apr 2018                  |
| 6.1.1) NC3 NMHS Technical Refresh                                                |                      | 2019      | TBD / TBD                                                                  | C / TBD                                       | TBD                    | Nov 2018              | Nov 2018                              | 13                                                                     | 155.538                     | N                               | Mar 2018                               |                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                            |  | <b>Date:</b> February 2018 |  |                                                                         |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |  |                            |  | <b>Modification Number / Title:</b><br>1 / W4008 Transmission Equipment |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 27.350      | 5.818   | 24.165  | 12.391       | 0.000       | 12.391          | 14.050  | 14.130  | 14.935  | 14.589  | 2.376       | 129.804 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 27.350      | 5.818   | 24.165  | 12.391       | 0.000       | 12.391          | 14.050  | 14.130  | 14.935  | 14.589  | 2.376       | 129.804 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                            | 27.350      | 5.818   | 24.165  | 12.391       | 0.000       | 12.391          | 14.050  | 14.130  | 14.935  | 14.589  | 2.376       | 129.804 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

Transmission Equipment program modernizes the aging and obsolete equipment of the submarine broadcast transmission systems, which include the high power transmitters and antennas located at the Broadcast Transmitter Station (BTS) sites. Different equipment are procured each year for this effort depending on modernization requirements. In FY18, one (1) Bushing, one (1) Insulator, one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing, one (1) AN/FRT-95 Conversion to AN/FRT-95D, four (4) Network Tech Upgrade Kits, four (4) Solid-State Variable PA Plate Power Supplies, and (1) UV Arc Sensor were procured. In support of the replacement of the damaged Fixed Submarine Broadcast System (FSBS) antenna and transmitter at the NRTF Aguada, PR site, the Tower Lighting Isolation Transformer (TLIT) Base Housing, the AN/FRT-95 Conversion to AN/FRT-95D and the Insulator were procured in FY18 with the FY18 Hurricane Amendment funding. In FY19, one (1) Base Insulator Assembly (BIA), one (1) Bushing, one (1) Insulator, one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing, two (2) Auto-tune Power Amplifiers, two (2) Auto-tune Systems, two (2) Tap Changer Under Load (TCUL) Transformers, and one (1) Transmission Line Impedance Matching Network (TLZN) will be procured.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                              |                                       |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>1 / W4008 Transmission Equipment |                                       |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                                                         |                                       |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                          |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                              |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                                                         |                                       |                                       |                                       |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                          | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                   | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                               |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> W4008 Transmission Equipment                    |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| A Kits                                                                           |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| Recurring                                                                        |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| 1.1.1) Transmission Equipment - NonOrganic                                       | 4 / 10.357                            | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                   | - / -                                 | - / -                                 | 4 / 10.357                            |  |
| 1.1.2) Antennas - NonOrganic <sup>(10)</sup>                                     | 4 / 2.000                             | 5 / 1.272                             | 3 / 5.995                             | 4 / 6.122                                                                  | - / -                                 | 4 / 6.122                             | 11 / 3.276                            | 1 / 0.060                             | 7 / 1.896                                                               | 1 / 5.025                             | - / -                                 | 36 / 25.646                           |  |
| 1.1.3) Transmitters - NonOrganic <sup>(11)</sup>                                 | 3 / 10.200                            | 35 / 1.675                            | 10 / 11.071                           | 7 / 4.202                                                                  | - / -                                 | 7 / 4.202                             | 7 / 5.501                             | 3 / 11.013                            | 12 / 10.183                                                             | 7 / 5.579                             | - / -                                 | 84 / 59.424                           |  |
| 1.1.4) Antennas - Not Installed - Organic                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                                                      | - / -                                 | - / -                                 | - / -                                 | 1 / 0.567                             | - / -                                                                   | - / -                                 | - / -                                 | 1 / 0.567                             |  |
| <i>Subtotal: Recurring</i>                                                       | - / 22.557                            | - / 2.947                             | - / 17.066                            | - / 10.324                                                                 | - / -                                 | - / 10.324                            | - / 8.777                             | - / 11.640                            | - / 12.079                                                              | - / 10.604                            | - / 0.000                             | - / 95.994                            |  |
| <i>Subtotal: W4008 Transmission Equipment</i>                                    | 11 / 22.557                           | 40 / 2.947                            | 13 / 17.066                           | 11 / 10.324                                                                | - / -                                 | 11 / 10.324                           | 18 / 8.777                            | 5 / 11.640                            | 19 / 12.079                                                             | 8 / 10.604                            | - / -                                 | 125 / 95.994                          |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 22.557                            | - / 2.947                             | - / 17.066                            | - / 10.324                                                                 | - / -                                 | - / 10.324                            | - / 8.777                             | - / 11.640                            | - / 12.079                                                              | - / 10.604                            | - / 0.000                             | - / 95.994                            |  |
| <b>Support (All Modification Items)</b>                                          |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| 2.1) Production Support                                                          | - / 1.383                             | - / 0.227                             | - / 1.258                             | - / 0.654                                                                  | - / 0.000                             | - / 0.654                             | - / 0.632                             | - / 0.425                             | - / 0.530                                                               | - / 0.517                             | - / -                                 | - / 5.626                             |  |
| <i>Subtotal: Support</i>                                                         | - / 1.383                             | - / 0.227                             | - / 1.258                             | - / 0.654                                                                  | - / -                                 | - / 0.654                             | - / 0.632                             | - / 0.425                             | - / 0.530                                                               | - / 0.517                             | - / 0.000                             | - / 5.626                             |  |
| <b>Installation</b>                                                              |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> W4008 Transmission Equipment                    | - / 3.410                             | - / 2.644                             | - / 5.841                             | - / 1.413                                                                  | - / 0.000                             | - / 1.413                             | - / 4.641                             | - / 2.065                             | - / 2.326                                                               | - / 3.468                             | - / 2.376                             | - / 28.184                            |  |
| <i>Subtotal: Installation</i>                                                    | - / 3.410                             | - / 2.644                             | - / 5.841                             | - / 1.413                                                                  | - / -                                 | - / 1.413                             | - / 4.641                             | - / 2.065                             | - / 2.326                                                               | - / 3.468                             | - / 2.376                             | - / 28.184                            |  |
| <b>Total</b>                                                                     |                                       |                                       |                                       |                                                                            |                                       |                                       |                                       |                                       |                                                                         |                                       |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>27.350</b>                         | <b>5.818</b>                          | <b>24.165</b>                         | <b>12.391</b>                                                              | <b>0.000</b>                          | <b>12.391</b>                         | <b>14.050</b>                         | <b>14.130</b>                         | <b>14.935</b>                                                           | <b>14.589</b>                         | <b>2.376</b>                          | <b>129.804</b>                        |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                |                                |                                |                                |                                                                            |                                |                                | <b>Date:</b> February 2018            |                                                                         |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                          |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |                                |                                |                                       | <b>Modification Number / Title:</b><br>1 / W4008 Transmission Equipment |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                   |                                |                                |                                |                                                                            |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                         |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> W4008 Transmission Equipment                                             |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                           |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| Manufacturer Name: SSC PAC (Antennas) <sup>(12)</sup>                                                     |                                |                                |                                |                                                                            |                                |                                | Manufacturer Location: San Diego, CA  |                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                    |                                |                                |                                |                                                                            |                                |                                | Production Leadtime (in Months): 12   |                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                                              | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                                            | Mar 2017                       | Mar 2018                       | Jan 2019                       |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                                            | Jun 2017                       | Jan 2019                       | Jan 2020                       |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| Manufacturer Name: SSC LANT (Transmitters)                                                                |                                |                                |                                |                                                                            |                                |                                | Manufacturer Location: Charleston, SC |                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                                    |                                |                                |                                |                                                                            |                                |                                | Production Leadtime (in Months): 5    |                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                                              | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                             | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                                            | Jan 2017                       | Jan 2018                       | Jan 2019                       |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                                            | Jun 2017                       | Jun 2018                       | Jun 2019                       |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                           |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| <b>Method of Implementation:</b> Alteration Installation Team:: Installation Name: Transmission Equipment |                                |                                |                                |                                                                            |                                |                                |                                       |                                                                         |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                                  | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                          | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                               | 7 / 3.410                      | 3 / 0.887                      | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 10 / 4.297                     |
| FY 2017                                                                                                   | - / -                          | 18 / 1.757                     | 22 / 1.261                     | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 40 / 3.018                     |
| FY 2018                                                                                                   | - / -                          | - / -                          | 8 / 4.580                      | 5 / 0.681                                                                  | 0 / 0.000                      | 5 / 0.681                      | - / -                                 | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 13 / 5.261                     |
| FY 2019                                                                                                   | - / -                          | - / -                          | - / -                          | 2 / 0.732                                                                  | 0 / 0.000                      | 2 / 0.732                      | 9 / 3.640                             | - / -                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 11 / 4.372                     |
| FY 2020                                                                                                   | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | 10 / 1.001                            | 8 / 1.981                                                               | - / -                          | - / -                          | 0 / 0.000                      | 18 / 2.982                     |
| FY 2021                                                                                                   | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | 1 / 0.084                                                               | 3 / 1.050                      | - / -                          | 0 / 0.000                      | 4 / 1.134                      |
| FY 2022                                                                                                   | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                   | 11 / 1.276                     | 8 / 2.662                      | 0 / 0.000                      | 19 / 3.938                     |
| FY 2023                                                                                                   | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                   | - / -                          | 7 / 0.806                      | 1 / 2.376                      | 8 / 3.182                      |
| To Complete                                                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                                 | - / -                                                                   | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                                                     | 7 / 3.410                      | 21 / 2.644                     | 30 / 5.841                     | 7 / 1.413                                                                  | 0 / 0.000                      | 7 / 1.413                      | 19 / 4.641                            | 9 / 2.065                                                               | 14 / 2.326                     | 15 / 3.468                     | 1 / 2.376                      | 123 / 28.184                   |



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------|-----------|-----------|----------------|-----------|-------------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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 |           |           |                |           | <b>Date:</b> February 2018                                              |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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 |           |           |                |           | <b>Modification Number / Title:</b><br>1 / W4008 Transmission Equipment |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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Code:</b> |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> W4008 Transmission Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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 |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Alteration Installation Team:: Installation Name: Transmission Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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 |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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 |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>PYS</b> | <b>FY 2017</b> |           |           |           | <b>FY 2018</b> |           |           |           | <b>FY 2019</b>                                                             |           |           |           | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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 | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                               | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7          | -              | -         | -         | 13        | 6              | 1         | 10        | 19        | -                                                                          | -         | 5         | 5         | -              | 3                      | 1         | 15        | -              | 1         | 1                                                                       | 7         | -              | -         | 5         | 9         | -              | -         | 8         | 7         | 1         | 124        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 7          | -              | -         | -         | 13        | 6              | 1         | 10        | 19        | -                                                                          | -         | 5         | 5         | -              | 3                      | 1         | 15        | -              | 1         | 1                                                                       | 7         | -              | -         | 5         | 9         | -              | -         | 8         | 7         | 1         | 124        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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 |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation (Organic):</b> Antennas - Not Installed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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 |           |           |                |           | <b>Installation Quantity:</b> 1                                         |           |                |           |           |           |                |           |           |           |           |            |
| <p><b>Footnotes:</b></p> <p><sup>(10)</sup> ANTENNA Transmission Equipment funds modernize the aging and obsolete antenna equipment used in the Submarine Broadcast. Procurement and Installation unit costs vary due to procuring and installing different equipment each fiscal year. FY18 Hurricane Amendment funding is in support of the replacement of damaged Fixed Submarine Broadcast (FSBS) antennas and transmitters equipment at NRTF Aguada, PR site. These replacement efforts are essential to Nuclear Command, Control, and Communication (NC3) readiness, since the primary mission of the FSBS is NC3, providing 24/7 one-way Low Frequency/Very Low Frequency (LF/VLF) transmission of strategic and tactical messages to submarines operating in a stealth posture. FY18 ANTENNA funding procured three (3) equipment items: one (1) Bushing, one (1) Insulator, and one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing utilizing a task order contract which was awarded in January 2018. The Bushing delivers eleven (11) months after contract award. The Bushing will be installed in FY19 due to the assembly requirements prior to installation, weather conditions and operational availability at NCTAMS LANT Cutler, ME. The procurement of one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing and one (1) Insulator will replace the damaged equipment sustained during the Hurricane at the NRTF Aguada, PR site. The TLIT Base Housing delivers five (5) months after contract award, and the Insulator delivers twelve (12) months after contract award. Both TLIT Base Housing and Insulator will be installed in FY19 due to the procurement lead time, shipment requirements, and assembly requirements at the NRTF Aguada, PR site. FY19 ANTENNA funding will procure four (4) equipment items: one (1) Base Insulator Assembly (BIA), one (1) Bushing, one (1) Insulator, and one (1) Tower Lighting Isolation Transformer (TLIT) Base Housing all on one task order of the same contract which is expected to be awarded in January 2019. The TLIT Base Housing will be installed utilizing FY19 funding and are subject to site availabilities. The BIA delivers nine (9) months after contract award and the Insulator delivers twelve (12) months after contract award. Both BIA and Insulator will be installed in FY20 due to the procurement lead time, shipment requirements, weather conditions, and operational availability at NCTAMS LANT Det LaMoure, ND.</p> <p><sup>(11)</sup> TRANSMITTERS Transmission Equipment funds modernize the aging and obsolete transmitter components used in the Submarine Broadcast. Procurement and Installation unit costs vary due to procuring and installing different components each fiscal year. FY18 Hurricane Amendment funding is in support of the replacement of damaged Fixed Submarine Broadcast (FSBS) antennas and transmitters equipment at NRTF Aguada, PR site. These replacement efforts are essential to Nuclear Command, Control, and Communication (NC3) readiness, since the primary mission of the FSBS is NC3, providing 24/7 one-way Low Frequency/Very Low Frequency (LF/VLF) transmission of strategic and tactical messages to submarines operating in a stealth posture. FY18 TRANSMITTER funding procured ten (10) components: one (1) AN/FRT-95 Conversion to AN/FRT-95D, four (4) Network Tech Upgrade Kits, four (4) Solid-State Variable Power Amplifier Plate Power Supplies, and one (1) UV Arc Sensor. The procurement of one (1) AN/FRT-95 Conversion to AN/FRT-95D will replace the damaged equipment sustained during the Hurricane at the NRTF Aguada, PR site. The AN/FRT-95 Conversion to AN/FRT-95D delivers twelve (12) months after contract award and will be installed in FY19 due to the procurement lead time, shipment requirements, and assembly requirements at the NRTF Aguada, PR site. The Network Tech Upgrade and UV Arc Sensor will be installed using FY18 funding and are subject to site availabilities. The Solid-State Variable Power Amplifier Plate Power Supplies will be installed in FY19 due to the assembly and shipment requirements prior to the installation. FY19 TRANSMITTER funding will procure seven (7) components: two (2) Auto-tune Power Amplifiers, two (2) Auto-tune Systems, two (2) Tap Changer Under Load (TCUL) Transformers, and one (1) Transmission Line Impedance Matching Network (TLZN). The Auto-tune System and the TLZN will be installed utilizing FY19 funding and are subject to site availabilities. The TCUL will be installed in FY20 due to the assembly and shipment requirements prior to the installation.</p> <p><sup>(12)</sup> Antenna equipment (various components) is procured on one contract award in January 2018. Delivery dates vary between nine (9) and twelve (12) months.</p> |            |                |           |           |           |                |           |           |           |                                                                            |           |           |           |                |                        |           |           |                |           |                                                                         |           |                |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                            |  | <b>Date:</b> February 2018 |  |                                                                                                            |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |  |                            |  | <b>Modification Number / Title:</b><br>2 / W4009 Low Band Universal Communications System (LBUCS) Transmit |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 10.658      | 10.004  | 2.613   | 0.567        | 0.000       | 0.567           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 23.842 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 10.658      | 10.004  | 2.613   | 0.567        | 0.000       | 0.567           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 23.842 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 10.658      | 10.004  | 2.613   | 0.567        | 0.000       | 0.567           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 23.842 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Low Band Universal Communication System (LBUCS) Transmit will modernize the transmit subsystem hardware, software, and waveform components at Broadcast Transmitter Stations (BTS) and Broadcast Control Authority (BCA) sites including the Very Low Frequency (VLF) Broadcast Builder (VBB), AN/URT-30B Integrated VLF Transmit Terminal (IVTT), IVTT Proxy, the MD-1310, MD-1315, and MD-1316 Modulators, and the North Atlantic Treaty Organization (NATO) Interoperable Submarine Broadcast System (NISBS).

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|                                                                                                      |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                  |                                |                                |                                |                                                                     |                                |                                |                                | Date: February 2018                                                                                 |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12                            |                                |                                |                                | P-1 Line Item Number / Title:<br>3107 / Submarine Broadcast Support |                                |                                |                                | Modification Number / Title:<br>2 / W4009 Low Band Universal Communications System (LBUCS) Transmit |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                     |                                |                                |                                |                                                                     |                                |                                | MDAP/MAIS Code:                |                                                                                                     |                                |                                |                                |                                |
| Models of Systems Affected: VLF Broadcast System                                                     |                                |                                |                                | Modification Type: TBD                                              |                                |                                |                                | Related RDT&E PEs: 0101402N                                                                         |                                |                                |                                |                                |
| Financial Plan                                                                                       | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                        | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                             | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                                          |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| Modification Item 1 of 1: W4009 Low Band Universal Communications System (LBUCS) Transmit            |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| A Kits                                                                                               |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| Non-Recurring                                                                                        |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| 1.1.1) Broadcast Keying Station (BKS)/Broadcast Control Authority (BCA) - NonOrganic <sup>(13)</sup> | 4 / 2.162                      | 24 / 4.228                     | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | 28 / 6.390                     |
| 1.1.2) Broadcast Transmitter Station (BTS) - NonOrganic <sup>(14)</sup>                              | 8 / 1.800                      | 20 / 4.075                     | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | 28 / 5.875                     |
| Subtotal: Non-Recurring                                                                              | - / 3.962                      | - / 8.303                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / 0.000                      | - / 12.265                     |
| Subtotal: W4009 Low Band Universal Communications System (LBUCS) Transmit                            | 12 / 3.962                     | 44 / 8.303                     | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | 56 / 12.265                    |
| Subtotal: Procurement, All Modification Items                                                        | - / 3.962                      | - / 8.303                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / 0.000                      | - / 12.265                     |
| Support (All Modification Items)                                                                     |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| 2.1) Production Support                                                                              | - / 0.839                      | - / 0.120                      | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | - / 0.959                      |
| 2.2) DSA                                                                                             | - / 2.158                      | - / 0.696                      | - / 0.400                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | - / 3.254                      |
| 2.3) Data Logistics                                                                                  | - / 1.346                      | - / 0.025                      | - / 0.025                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | - / 1.396                      |
| 2.4) Engineering Change Requests                                                                     | - / 0.833                      | - / -                          | - / -                          | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / -                          | - / 0.833                      |
| Subtotal: Support                                                                                    | - / 5.176                      | - / 0.841                      | - / 0.425                      | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / 0.000                      | - / 6.442                      |
| Installation                                                                                         |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| Modification Item 1 of 1: W4009 Low Band Universal Communications System (LBUCS) Transmit            | - / 1.520                      | - / 0.860                      | - / 2.188                      | - / 0.567                                                           | - / 0.000                      | - / 0.567                      | - / 0.000                      | - / 0.000                                                                                           | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 5.135                      |
| Subtotal: Installation                                                                               | - / 1.520                      | - / 0.860                      | - / 2.188                      | - / 0.567                                                           | - / -                          | - / 0.567                      | - / -                          | - / -                                                                                               | - / -                          | - / -                          | - / 0.000                      | - / 5.135                      |
| Total                                                                                                |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                                                    | 10.658                         | 10.004                         | 2.613                          | 0.567                                                               | 0.000                          | 0.567                          | 0.000                          | 0.000                                                                                               | 0.000                          | 0.000                          | 0.000                          | 23.842                         |
|                                                                                                      |                                |                                |                                |                                                                     |                                |                                |                                |                                                                                                     |                                |                                |                                |                                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support | <b>Modification Number / Title:</b><br>2 / W4009 Low Band Universal Communications System (LBUCS) Transmit |

|                                                         |                        |
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| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
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| <b>Modification Item 1 of 1:</b> W4009 Low Band Universal Communications System (LBUCS) Transmit |
|--------------------------------------------------------------------------------------------------|

**Manufacturer Information**

|                             |                                       |
|-----------------------------|---------------------------------------|
| Manufacturer Name: SSC LANT | Manufacturer Location: Charleston, SC |
|-----------------------------|---------------------------------------|

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Administrative Leadtime (in Months): 5 | Production Leadtime (in Months): 3 |
|----------------------------------------|------------------------------------|

| Dates          | FY 2017  | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|---------|---------|---------|---------|---------|---------|
| Contract Dates | Mar 2017 |         |         |         |         |         |         |
| Delivery Dates | Jun 2017 |         |         |         |         |         |         |

**Installation Information**

|                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Method of Implementation:</b> Alteration Installation Team:: Installation Name: Broadcast Control Authority & Broadcast Transmitter |
|----------------------------------------------------------------------------------------------------------------------------------------|

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 8 / 1.520                      | 4 / 0.267                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 12 / 1.787                     |
| FY 2017           | - / -                          | 10 / 0.593                     | 26 / 2.188                     | 8 / 0.567                      | 0 / 0.000                      | 8 / 0.567                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 44 / 3.348                     |
| FY 2018           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 8 / 1.520                      | 14 / 0.860                     | 26 / 2.188                     | 8 / 0.567                      | 0 / 0.000                      | 8 / 0.567                      | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 56 / 5.135                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 8   | -       | -  | -  | 10 | -       | -  | 16 | 14 | 4       | 2  | 2  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 56 |     |
| Out | 8   | -       | -  | -  | 10 | -       | -  | 12 | 10 | 8       | 4  | 2  | 2  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | 56 |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Footnotes:</b><br>(13) Production costs for LBUCS equipment vary due to unique site configurations. LBUCS Transmit hardware components from COTS manufacturers are on short product lifecycles. Cost and duration for LBUCS Broadcast Control Authority (BCA) installations are greater than Broadcast Transmitter Stations (BTS) due to complexity of the BCA system. Additionally, install costs for BCA equipment vary due to |
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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                            | <b>Date:</b> February 2018                                                                                 |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support | <b>Modification Number / Title:</b><br>2 / W4009 Low Band Universal Communications System (LBUCS) Transmit |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                            | <b>MDAP/MAIS Code:</b>                                                                                     |
| <p>unique site configuration and mix of CONUS and OCONUS locations. For example, OCONUS (Puerto Rico, Australia, Japan, Iceland, Hawaii, and Italy) install costs are higher due to international coordination, modifications (e.g. international power modifications, travel and shipping.) With FY17 funds, LBUCS will install 10 production and installation support facility systems for which the cost is significantly lower than the operational BCAs and BTSS, as no international coordination, modification, shipping or travel will be required. These production and installation support facility systems installs can occur upon delivery, and no full deployment decision required. Additionally, several FY17 funded sites leverage LRIP equipment and require minimal modification to the existing structure. LBUCS Transmit equipment and cables will be installed in racks and must go through acceptance and integration testing prior to installation. This process can take up to 15 months due to complexity of each site's unique system configuration and special considerations (For example, international power modifications, adjustments for space availability, and extended shipping times for OCONUS sites). Installation schedule was arranged to accommodate sites with shorter integration timelines first and longer integration timelines later. The 14 installations taking place in FY17 have shorter integration timelines. Nearly all of the installations taking place in FY18 and FY19 are at OCONUS sites which require additional integration time, coordination, travel, and shipping, and therefore must be procured and installed in different years. LBUCS delayed the installation schedule due to factors including an emergent requirement to verify correction of cyber deficiencies prior to install, projected lack of availability of system-wide transmitter downtime (downtime is required to complete installations) in the wake of Hurricane Maria's impact on the Puerto Rico transmitter, as well as an emergent requirement for LBUCS to independently stand-up point-to-point connectivity between the BCA and BTS sites.</p> <p><sup>(14)</sup> The LBUCS Transmit BTS production cost increased from PB18 due to an emergent requirement for LBUCS to independently stand-up turn-key point-to-point connectivity between the BCA and BTS sites. This requirement emerged because of a policy change by the Defense Information Systems Agency (DISA).</p> |                                                                            |                                                                                                            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                            |  | <b>Date:</b> February 2018 |  |                                                                                                                                         |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |  |                            |  | <b>Modification Number / Title:</b><br>3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 11.331      | 10.601  | 8.481   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 30.413 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 11.331      | 10.601  | 8.481   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 30.413 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 11.331      | 10.601  | 8.481   | 0.000        | 0.000       | 0.000           | 0.000   | 0.000   | 0.000   | 0.000   | 0.000       | 30.413 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

[P3A / W4010 Legacy NC3 NMHS]: FY14-FY18 Legacy Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS): The Legacy NC3 NMHS messaging hardware and software will provide accurate and reliable delivery of time-critical messages for command and control of nuclear forces in a pre-attack environment for force direction, force management, situation monitoring and planning. The NC3 NMHS hardware and software upgrade at all sites will replace Navy Information eXchange Terminal(NIXT) at shore communications stations supporting NC3.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                    |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                                                                              |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                              |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                       |                                |                                |                                |                                                                            |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                                                                         |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                                                                       |                                |                                |                                | <b>Modification Type:</b> TBD                                              |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0101402N |                                |                                                                                                                                         |                                |                                |  |
| <b>Financial Plan</b>                                                                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                        | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                                                                          | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                                                            |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| <i>Modification Item 1 of 1:</i> W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| A Kits                                                                                                                        |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| Recurring                                                                                                                     |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| 1.1.1) W4010 NC3 NMHS - Nova (Legacy) - NonOrganic <sup>(15)</sup>                                                            | 7 / 1.950                      | 4 / 3.337                      | 4 / 3.274                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / -                          | 15 / 8.561                     |  |
| 1.1.2) W4010 NC3 NMHS - NIXT (Legacy) - NonOrganic <sup>(16)</sup>                                                            | 98 / 2.941                     | 32 / 4.160                     | 21 / 2.346                     | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / -                          | 151 / 9.447                    |  |
| <i>Subtotal: Recurring</i>                                                                                                    | - / 4.891                      | - / 7.497                      | - / 5.620                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / 0.000                      | - / 18.008                     |  |
| <i>Subtotal: W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)</i>                 | 105 / 4.891                    | 36 / 7.497                     | 25 / 5.620                     | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / -                          | 166 / 18.008                   |  |
| <i>Subtotal: Procurement, All Modification Items</i>                                                                          | - / 4.891                      | - / 7.497                      | - / 5.620                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / 0.000                      | - / 18.008                     |  |
| <b>Support (All Modification Items)</b>                                                                                       |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| 2.1) Nova/NIXT Legacy- Production Support                                                                                     | - / 0.229                      | - / 0.302                      | - / 0.136                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / -                          | - / 0.667                      |  |
| <i>Subtotal: Support</i>                                                                                                      | - / 0.229                      | - / 0.302                      | - / 0.136                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / 0.000                      | - / 0.667                      |  |
| <b>Installation</b>                                                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| <i>Modification Item 1 of 1:</i> W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) | - / 6.211                      | - / 2.802                      | - / 2.725                      | - / 0.000                                                                  | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                              | - / 0.000                      | - / 0.000                                                                                                                               | - / 0.000                      | - / 11.738                     |  |
| <i>Subtotal: Installation</i>                                                                                                 | - / 6.211                      | - / 2.802                      | - / 2.725                      | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                                                                                   | - / 0.000                      | - / 11.738                     |  |
| <b>Total</b>                                                                                                                  |                                |                                |                                |                                                                            |                                |                                |                                |                                        |                                |                                                                                                                                         |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                                                      | <b>11.331</b>                  | <b>10.601</b>                  | <b>8.481</b>                   | <b>0.000</b>                                                               | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                           | <b>0.000</b>                   | <b>0.000</b>                                                                                                                            | <b>0.000</b>                   | <b>30.413</b>                  |  |

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|-------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                    |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                              |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support |           |                                |           |                                |                                      |                                |           |                                |           | <b>Modification Number / Title:</b><br>3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | <b>MDAP/MAIS Code:</b>               |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: SSC PAC                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Manufacturer Location: San Diego, CA |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 1                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                | Production Leadtime (in Months): 1   |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                  |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                |            | Nov 2016                       |           |                                |           | Nov 2017                       |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                |            | Dec 2016                       |           |                                |           | Dec 2017                       |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: W4010 NC3 NMHS - Nova (Legacy)                         |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                      |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                         |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                      | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                                                          |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                               |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                             |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                                                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                   |            | 7 / 1.144                      |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | 0 / 0.000                      |           | 7 / 1.144                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                                       |            | - / -                          |           | 4 / 1.656                      |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | 0 / 0.000                      |           | 4 / 1.656                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                       |            | - / -                          |           | - / -                          |           | 4 / 1.660                      |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | 0 / 0.000                      |           | 4 / 1.660                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                         |            | 7 / 1.144                      |           | 4 / 1.656                      |           | 4 / 1.660                      |           | - / -                          |           | - / -                                                                      |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                                                                                                   |           | 0 / 0.000                      |           | 15 / 4.460                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                            |           |                                |           |                                |                                      |                                |           |                                |           |                                                                                                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                             |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                                                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                               |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                  | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                                                               | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                            | 7          | -                              | -         | 2                              | 2         | -                              | -         | 2                              | 2         | -                                                                          | -         | -                              | -         | -                              | -                                    | -                              | -         | -                              | -         | -                                                                                                                                       | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 15         |
| Out                                                                                                                           | 7          | -                              | -         | 2                              | 2         | -                              | -         | 2                              | 2         | -                                                                          | -         | -                              | -         | -                              | -                                    | -                              | -         | -                              | -         | -                                                                                                                                       | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 15         |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                            | <b>Date:</b> February 2018                                                                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 | <b>P-1 Line Item Number / Title:</b><br>3107 / Submarine Broadcast Support | <b>Modification Number / Title:</b><br>3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)

**Installation Information**

**Method of Implementation:** [none specified]:: Installation Name: W4010 NC3 NMHS - NIXT (Legacy)

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 98 / 5.067                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 98 / 5.067                     |
| FY 2017           | - / -                          | 32 / 1.146                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 32 / 1.146                     |
| FY 2018           | - / -                          | - / -                          | 21 / 1.065                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 21 / 1.065                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |
| Total             | 98 / 5.067                     | 32 / 1.146                     | 21 / 1.065                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 151 / 7.278                    |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC | Tot |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|-----|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |    |     |
| In  | 98  | 8       | 8  | 8  | 8  | 1       | 6  | 6  | 8  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 151 |
| Out | 98  | 8       | 8  | 8  | 8  | 1       | 6  | 6  | 8  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -       | -  | -  | -  | -  | 151 |

**Footnotes:**

<sup>(15)</sup> Unit cost fluctuation is due to procurement of variable systems to support Nova legacy configurations and the addition of Network Monitoring/Computer Network Defense(NETMon/CND) capability requirement to meet cyber security requirements.

<sup>(16)</sup> Unit cost fluctuation is due to procurement of variable systems to support Navy Information eXchange Terminal (NIXT) legacy configurations, and the addition of Network Monitoring/Computer Network Defense(NETMon/CND) capability requirement to meet cyber security requirements. Installation costs vary due to unique site configurations and equipment installation requirements.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|---------------------------------------------------------------------------|---------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             |                                                                           |         | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |         |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         | Program Elements for Code B Items: N/A |              |             |                                                                           |         | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                             | FY 2020 | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -           | -       | -                                      | -            | -           | -                                                                         | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 495.331     | 62.305  | 86.204                                 | 78.580       | 0.000       | 78.580                                                                    | 73.630  | 64.510                              | 62.011  | 60.158  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -                                                                         | -       | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 495.331     | 62.305  | 86.204                                 | 78.580       | 0.000       | 78.580                                                                    | 73.630  | 64.510                              | 62.011  | 60.158  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -                                                                         | -       | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 495.331     | 62.305  | 86.204                                 | 78.580       | 0.000       | 78.580                                                                    | 73.630  | 64.510                              | 62.011  | 60.158  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -           | 0.305   | 0.701                                  | 1.377        | -           | 1.377                                                                     | 1.066   | 0.095                               | 0.018   | 0.036   | Continuing  | Continuing |
| Flyaway Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -                                      | -            | -           | -                                                                         | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -           | -       | -                                      | -            | -           | -                                                                         | -       | -                                   | -       | -       | -           | -          |
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| PROGRAM COVERAGE: The Submarine Communications Program mission is to create a common, automated, open system architecture radio room for all submarine classes. The program provides for the procurement and installation of systems incorporating the technical advances of network centric warfare to allow the submarine force to communicate as part of the Battle Group. The program addresses the unique demands of submarine communications, stealth, obsolescence issues and higher data rate requirements.                                                                                                                                                                                                                                                                                                                                             |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| [P40A / L0035 Antenna Modifications]: - Antenna modifications provide for the procurement and installation of field change kits of legacy antenna equipment (OE-315, AN/BRA-24, AN/BRA-6B, BRT-1/1A). These modifications address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology refresh. Modifications are applicable to all submarine classes (LOS ANGELES, SEAWOLF, OHIO SSBN/SSGN, and VIRGINIA) and are implemented on a Fleet priority basis. Procurement and Installation unit costs vary due to procuring and installing different components each fiscal year.                                                                                                                                                                                                             |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| [P40A / L0099 Towed Buoy Antenna (TBA) (AN/BRR-6/6B) Reliability Improvements]: The Towed Buoy Antenna (TBA) (AN/BRR-6/6B) system is installed on the OHIO Class Ballistic Missile Submarines (SSBN). Each boat has two (2) towed communications buoys with the sole function of supporting Navy Nuclear Command, Control, and Communications (NC3) strategic requirements, connecting the President of the United States (POTUS) to SSBN communications reception for the strategic deterrent mission. The TBA AN/BRR-6/6B system receives transmission across the Very Low Frequency (VLF), Low Frequency (LF), and High Frequency (HF) range. The buoy system provides significant operational flexibility by providing a means to passively receive communications while remaining at depth with minimal impact on boat's maneuverability or detectability. |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| Different hardware components are procured each fiscal year. Budget exhibits and quantities have been updated from PB18. Procurements are now subdivided into each type of upgrade to provide greater detail in budget request from year to year. Procurements vary each year due to the phased approach as prescribed in the AN/BRR-6/6B Towed Buoy Antenna Lean Six Sigma Event Final Report of 30 September 2011. Hardware components are selected by TBA unit interdependency, urgent need for improvement, and fielding efficiency without degrading SSBN operational readiness.                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |
| The TBA AN/BRR-6/6B reliability improvements provide for the procurement and installation of field change kits to improve system performance (measured by operational availability (Ao)) and reliability (measured by mean time between failures (MTBF)); improvements are applicable to SSBN only. The TBA AN/BRR-6/6B is a key component of the NC3 system and the primary means of receiving Emergency Action Messages (EAMs).                                                                                                                                                                                                                                                                                                                                                                                                                               |             |         |                                        |              |             |                                                                           |         |                                     |         |         |             |            |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        | Date: February 2018                                                       |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 12: Submarine Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                                       |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |                                                                           |
| <p>[P3A / L0080 OE-538/BRC Inc 2]: OUTBOARD ELECTRONICS (OE)-538 &amp; OE-592 ANTENNA GROUP - The OE-538 System is currently installed on all submarine classes except SSBN. The OE-592 system is currently installed on SSBNs. The OE-538 Inc 2 consists of two configurations: OE-538A and OE-538B. The OE-538A effort upgrades the OE-538 system from FY15-FY21 to support Mobile User Objective System (MUOS), Link-16 Tactical Data Link and Iridium capabilities. The OE-538B efforts upgrades the OE-538A from FY20-FY27 to support Global Positioning System (GPS) Anti-Jam and GPS Military Coded capabilities.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        |                                                                           |
| <p>[P3A - 2 / L0087 Submarine High Data Rate Antenna]: SUBMARINE HIGH DATA RATE (SubHDR) SATELLITE COMMUNICATIONS SYSTEM - The SubHDR system provides submarines with antennas that have the bandwidth, gain, and flexibility to meet the stated Commander, Submarine Force, United States Atlantic Fleet/Commander, Submarine Force, US Pacific Fleet (COMSUBLANT/COMSUBPAC) requirements for HDR communications in the Super High Frequency (SHF) and Extremely High Frequency (EHF) frequency spectrums. The Radome provides a watertight enclosure for the antenna and associated electronics, as well as being a transparent window for Radio Frequency, (RF) communication signals to pass through. This radome needs to be replaced with a newly designed radome because the existing radome is experiencing severe cracking after only 3 to 4 years of service, at which time it is required to be pulled from service in order to prevent an implosion. This new design will prevent those cracks from occurring.</p>                                                                                                                                                       |                                        |                                                                           |
| <p>[P3A - 3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades]: The Common Submarine Radio Room (CSRR) is an interoperable submarine communications system operating within the Information Dominance architecture, which provides consistent and reliable two-way, modern, Internet Protocol (IP) connectivity to joint and combined forces. This evolutionary system achieves unmatched capability, cost reduction, and future technology integration via a multimedia, circuit sharing, and Commercial Off-The-Shelf (COTS) based open architecture that serves as the shipboard automated communications control system. Procurement in this line is for the radio room workstations, chassis, Radio Frequency Distribution and Control System (RFDACS), common power supplies, power distribution units, cabling, mounting kits and ancillary components required to integrate communications equipment for submarines. The RFDACS technology update for LOS ANGELES class submarines brings COTS functionality and supportability to the submarine external communications system. The CSRR Program supports LOS ANGELES, SEAWOLF, VIRGINIA and OHIO (SSBN and SSGN) class submarines.</p> |                                        |                                                                           |
| <p>CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3 and Version 4 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |                                                                           |
| <p>The Undersea Platforms Special Communications program provides a fully integrated and tested Undersea Assured Command &amp; Control (UAC2) communications system enabling command and control (C2) in an environment where traditional communications are not available, thereby reducing platform susceptibility of detection and attack by the adversary.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |                                                                           |
| <p>Link 16 provides an enhanced submarine communication system by providing a two-way Tactical Data Link (TDL) processing capability on all Submarine (Nuclear) (SSN) and Guided Missile Submarine (Nuclear) (SSGN) platforms. The Link 16 program provides submarine Command &amp; Control systems with Link 16 tactical network communications capabilities for situational awareness in a contested environment and is a key element in naval tactical networking. The new technology ensures the submarine's continued ability to participate in network-centric warfare and exploit its inherent stealth capabilities in support of the Navy, Nuclear Command, Control, and Communications (NC3), Joint, and allied/coalition fight to achieve total battlespace information dominance.</p>                                                                                                                                                                                                                                                                                                                                                                                     |                                        |                                                                           |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                 |  |                                        | Date: February 2018                                                       |                                     |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications |  |                                        | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                     |  |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                          |  | Program Elements for Code B Items: N/A |                                                                           | Other Related Program Elements: N/A |  |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                              |  |                                        |                                                                           |                                     |  |

| Exhibits Schedule |                                                            |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                     | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a             | Submarine Communication Equipment                          | P-5a        |       |                | - / 72.921                            | - / 2.575                             | - / 10.551                            | - / 16.807                            | - / -                                 | - / 16.807                            |
| P-3a              | 1 / L0080 OE-538/BRC Inc 2 (Upgrade)                       |             |       |                | - / 13.010                            | - / 11.852                            | - / 21.929                            | - / 20.465                            | - / 0.000                             | - / 20.465                            |
| P-3a              | 2 / L0087 Submarine High Data Rate Antenna (Upgrade)       |             |       |                | - / 38.145                            | - / 6.438                             | - / 0.144                             | - / 0.000                             | - / 0.000                             | - / 0.000                             |
| P-3a              | 3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades (Various)          |             |       |                | - / 65.795                            | - / 12.896                            | - / 14.452                            | - / 9.472                             | - / 0.000                             | - / 9.472                             |
| P-3a              | 4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades (Various)          |             |       |                | - / 31.948                            | - / 1.116                             | - / 5.123                             | - / 3.162                             | - / 0.000                             | - / 3.162                             |
| P-3a              | 5 / L0084 CSRR-SSN (SEAWOLF) (Various)                     |             |       |                | - / 51.044                            | - / 3.266                             | - / 3.745                             | - / 2.334                             | - / 0.000                             | - / 2.334                             |
| P-3a              | 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades (Various)       |             |       |                | - / 53.409                            | - / 9.510                             | - / 15.400                            | - / 12.405                            | - / 0.000                             | - / 12.405                            |
| P-3a              | 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades (Various) |             |       |                | - / 169.059                           | - / 14.652                            | - / 14.860                            | - / 13.935                            | - / 0.000                             | - / 13.935                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                      |             |       |                | <b>- / 495.331</b>                    | <b>- / 62.305</b>                     | <b>- / 86.204</b>                     | <b>- / 78.580</b>                     | <b>- / 0.000</b>                      | <b>- / 78.580</b>                     |

| Exhibits Schedule |                                                            |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
|-------------------|------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                     | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-40a             | Submarine Communication Equipment                          | P-5a        |       |                | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| P-3a              | 1 / L0080 OE-538/BRC Inc 2 (Upgrade)                       |             |       |                | - / 23.284                            | - / 23.494                            | - / 24.032                            | - / 24.475                            | Continuing                            | Continuing                            |
| P-3a              | 2 / L0087 Submarine High Data Rate Antenna (Upgrade)       |             |       |                | - / 0.000                             | - / 7.370                             | - / 8.004                             | - / 8.167                             | Continuing                            | Continuing                            |
| P-3a              | 3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades (Various)          |             |       |                | - / 3.581                             | - / 2.476                             | - / 2.757                             | - / 2.131                             | Continuing                            | Continuing                            |
| P-3a              | 4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades (Various)          |             |       |                | - / 5.357                             | - / 4.021                             | - / 1.699                             | - / 0.000                             | Continuing                            | Continuing                            |
| P-3a              | 5 / L0084 CSRR-SSN (SEAWOLF) (Various)                     |             |       |                | - / 2.741                             | - / 3.082                             | - / 2.800                             | - / 0.402                             | Continuing                            | Continuing                            |
| P-3a              | 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades (Various)       |             |       |                | - / 10.567                            | - / 7.155                             | - / 6.950                             | - / 5.771                             | Continuing                            | Continuing                            |
| P-3a              | 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades (Various) |             |       |                | - / 11.859                            | - / 5.216                             | - / 5.793                             | - / 9.027                             | Continuing                            | Continuing                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                      |             |       |                | <b>- / 73.630</b>                     | <b>- / 64.510</b>                     | <b>- / 62.011</b>                     | <b>- / 60.158</b>                     | <b>Continuing</b>                     | <b>Continuing</b>                     |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

- FY19 Antenna Modifications: Procure and install multiple field change kits for legacy antenna equipment, applicable to all submarine classes, to address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology insertion.

- FY19 Towed Buoy Antenna (TBA)(AN/BRR-6/6B): Procure and install various hardware components which are fielded to the Ballistic Missile Submarine (SSBN) fleet to improve system performance (measured by operational availability) and reliability (measured by mean time between failures). FY19 funding increase of \$4.7M over the FY18 budget is due to additional procurements of Tow Cable Equipment and Nests and Inertial Measurement units required to support reliability improvements provide for the procurement and installation of field change kits to improve system performance (measured by operational availability (Ao)) and reliability (measured by mean time between failures (MTBF)); improvements are applicable to SSBN only.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               | <b>Date:</b> February 2018                                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 12: Submarine Communications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                       |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               |                                                                                  |
| <p>- FY19 Common Submarine Radio Room (CSRR): Implements CSRR on LOS ANGELES class submarines and modernizes CSRR on OHIO (SSBN/SSGN), SEAWOLF and VIRGINIA platforms. Funding will support procurement of CSRR Increment 1 Version 4, Radio Frequency Distribution and Control Systems (RFDACS) to address Reliability, Maintainability, Availability (RMA) and Environmental Qualification Testing (EQT) deficiencies, Undersea Assured Command &amp; Control (UAC2) Solution 1 and Solution 2, and Link 16 terminals. In addition, funding will support installation of CSRR Increment 1 Version 3, CSRR Increment 1 Version 4, RFDACS (procured as a separate CSRR component but fielded as part of the CSRR Inc1v4 modernization kit installations) and UAC2 Solution 1 and Solution 2. FY19 funding increase of \$1.6M over the FY18 budget is due to UAC2 and Link 16 procurements, not previously procured in FY18.</p> <p>- FY19 Submarine High Data Rate (SubHDR): Radome procurement inventory requirement met in FY17</p> <p>- FY19 Outboard Electronics (OE)-538 &amp; OE-592 antenna group: Procure OE-538A upgrade kits to support submarine communications requirements: Mobile User Objective System (MUOS), Link-16 Tactical Data Link (TDL), and Iridium.</p> |                                               |                                                                                  |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                                  |       |                |                  |            |                   |                  |            |                   |                                                                           |            |                   |                  |            |                   |                  | Date: February 2018                                          |                   |                  |            |                   |  |
|--------------------------------------------------------------------------------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|------------|-------------------|---------------------------------------------------------------------------|------------|-------------------|------------------|------------|-------------------|------------------|--------------------------------------------------------------|-------------------|------------------|------------|-------------------|--|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12                                    |       |                |                  |            |                   |                  |            |                   | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |            |                   |                  |            |                   |                  | Aggregated Items Title:<br>Submarine Communication Equipment |                   |                  |            |                   |  |
| Item Number / Title [DODIC]                                                                                  | ID CD | MDAP/MAIS Code | Prior Years      |            |                   | FY 2017          |            |                   | FY 2018                                                                   |            |                   | FY 2019 Base     |            |                   | FY 2019 OCO      |                                                              |                   | FY 2019 Total    |            |                   |  |
|                                                                                                              |       |                | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)                                                          | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each)                                                   | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |  |
| 1) L0035 Antenna Modifications                                                                               |       |                |                  |            |                   |                  |            |                   |                                                                           |            |                   |                  |            |                   |                  |                                                              |                   |                  |            |                   |  |
| 1.1) Antenna Modifications <sup>(1)(†)</sup>                                                                 | A     |                | 148.447          | 150        | 22.267            | -                | -          | -                 | 54.662                                                                    | 65         | 3.553             | 55.742           | 62         | 3.456             | -                | -                                                            | -                 | 55.742           | 62         | 3.456             |  |
| Subtotal: 1) L0035 Antenna Modifications                                                                     |       |                | -                | -          | 22.267            | -                | -          | -                 | -                                                                         | -          | 3.553             | -                | -          | 3.456             | -                | -                                                            | -                 | -                | -          | 3.456             |  |
| 2) Common Submarine Radio Room (CSRR) - Support Systems Modification Kits (Increment 1 Versio <sup>(2)</sup> |       |                |                  |            |                   |                  |            |                   |                                                                           |            |                   |                  |            |                   |                  |                                                              |                   |                  |            |                   |  |
| 2.1) Equipment - (Prior Years)                                                                               | A     |                | 3,526.667        | 12         | 42.320            | -                | -          | -                 | -                                                                         | -          | -                 | -                | -          | -                 | -                | -                                                            | -                 | -                | -          | -                 |  |
| 2.2) Equipment - Mod Kits Inc 1 Ver 4 <sup>(†)</sup>                                                         | A     |                | 193.500          | 2          | 0.387             | -                | -          | -                 | 205.000                                                                   | 1          | 0.205             | -                | -          | -                 | -                | -                                                            | -                 | -                | -          | -                 |  |
| 2.3) Equipment - Multi-Reconfigurable Training System (MRTS)                                                 | A     |                | 281.000          | 8          | 2.248             | -                | -          | -                 | -                                                                         | -          | -                 | -                | -          | -                 | -                | -                                                            | -                 | -                | -          | -                 |  |
| 2.4) Equipment - Undersea Assured Command & Control (UAC2) Solution 1 <sup>(†)</sup>                         | A     |                | -                | -          | -                 | -                | -          | -                 | 201.500                                                                   | 4          | 0.806             | 204.333          | 3          | 0.613             | -                | -                                                            | -                 | 204.333          | 3          | 0.613             |  |
| 2.5) Equipment - UAC2 Solution 2 <sup>(†)</sup>                                                              | A     |                | -                | -          | -                 | -                | -          | -                 | -                                                                         | -          | -                 | 168.000          | 4          | 0.672             | -                | -                                                            | -                 | 168.000          | 4          | 0.672             |  |
| 2.6) Equipment - Link 16 <sup>(†)</sup>                                                                      | A     |                | -                | -          | -                 | -                | -          | -                 | -                                                                         | -          | -                 | 618.000          | 2          | 1.236             | -                | -                                                            | -                 | 618.000          | 2          | 1.236             |  |
| 2.7) Production Support                                                                                      | A     |                | -                | -          | 0.526             | -                | -          | -                 | -                                                                         | -          | 0.061             | -                | -          | 0.151             | -                | -                                                            | -                 | -                | -          | 0.151             |  |
| Subtotal: 2) Common Submarine Radio Room (CSRR) - Support Systems Modification Kits (Increment 1 Versio      |       |                | -                | -          | 45.481            | -                | -          | -                 | -                                                                         | -          | 1.072             | -                | -          | 2.672             | -                | -                                                            | -                 | -                | -          | 2.672             |  |
| 3) L0099 Towed Buoy Antenna (TBA) (AN/BRR-6/6B) Reliability Improvements <sup>(3)</sup>                      |       |                |                  |            |                   |                  |            |                   |                                                                           |            |                   |                  |            |                   |                  |                                                              |                   |                  |            |                   |  |
| 3.1) Equipment - (Prior Years)                                                                               | A     |                | 47.027           | 110        | 5.173             | -                | -          | -                 | -                                                                         | -          | -                 | -                | -          | -                 | -                | -                                                            | -                 | -                | -          | -                 |  |
| 3.2) Tow Cable Equipment & Nests <sup>(†)</sup>                                                              | A     |                | -                | -          | -                 | -                | -          | -                 | 63.533                                                                    | 45         | 2.859             | 64.978           | 134        | 8.707             | -                | -                                                            | -                 | 64.978           | 134        | 8.707             |  |
| 3.3) Inertial Measurement Unit <sup>(†)</sup>                                                                | A     |                | -                | -          | -                 | -                | -          | -                 | 50.600                                                                    | 10         | 0.506             | 52.567           | 30         | 1.577             | -                | -                                                            | -                 | 52.567           | 30         | 1.577             |  |
| 3.4) Antenna & Amplifier Improvements <sup>(†)</sup>                                                         | A     |                | -                | -          | -                 | 49.159           | 44         | 2.163             | 50.136                                                                    | 44         | 2.206             | -                | -          | -                 | -                | -                                                            | -                 | -                | -          | -                 |  |
| 3.8) Reel Boxes <sup>(†)</sup>                                                                               | A     |                | -                | -          | -                 | 2.355            | 110        | 0.259             | -                                                                         | -          | -                 | -                | -          | -                 | -                | -                                                            | -                 | -                | -          | -                 |  |
| 3.9) Production Support                                                                                      | A     |                | -                | -          | -                 | -                | -          | 0.153             | -                                                                         | -          | 0.355             | -                | -          | 0.395             | -                | -                                                            | -                 | -                | -          | 0.395             |  |

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|------------------------------------------------------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|---------------------------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------|--------------------------------------------------------------|---------------------|------------|-------------------|------------------|------------|-------------------|--|--|
| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy        |       |                |                  |            |                   |                  |                                                                           |                   |                  |            |                   |                  |            |                                                              | Date: February 2018 |            |                   |                  |            |                   |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12          |       |                |                  |            |                   |                  | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                   |                  |            |                   |                  |            | Aggregated Items Title:<br>Submarine Communication Equipment |                     |            |                   |                  |            |                   |  |  |
| Item Number / Title [DODIC]                                                        | ID CD | MDAP/MAIS Code | Prior Years      |            |                   | FY 2017          |                                                                           |                   | FY 2018          |            |                   | FY 2019 Base     |            |                                                              | FY 2019 OCO         |            |                   | FY 2019 Total    |            |                   |  |  |
|                                                                                    |       |                | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each)                                                                | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M)                                            | Unit Cost (\$ K)    | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |  |  |
| Subtotal: 3) L0099 Towed Buoy Antenna (TBA) (AN/BRR-6/6B) Reliability Improvements |       |                | -                | -          | 5.173             | -                | -                                                                         | 2.575             | -                | -          | 5.926             | -                | -          | 10.679                                                       | -                   | -          | -                 | -                | -          | 10.679            |  |  |
| Total                                                                              |       |                | -                | -          | 72.921            | -                | -                                                                         | 2.575             | -                | -          | 10.551            | -                | -          | 16.807                                                       | -                   | -          | -                 | -                | -          | 16.807            |  |  |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

**Footnotes:**

- (1) Antenna Modifications provide for the procurement and installation of field change kits of legacy antenna equipment (OE-315, AN/BRA-24, AN/BRA-6B, BRT-1/1A, Mast Mechanical Groups (MMG)). These modifications address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology insertion. FY19 will procure; 28 - AIS Amplifiers, 20 - Transmit/Receive Switches, 14 - Rotary Lip Seal Assemblies.
- (2) CSRR Support Systems Modernization Kits provide for the procurement and installation of CSRR baseline modernization reconfigurable lab assets to improve system performance and reliability and vary by Increment, Version, and Platform. FY19 includes procurement of seven Undersea Assured Command & Control (UAC2) solution sets to support DoD Teleports, DoN Submarine Broadcast Control Authorities and the CSRR land based submarine radio rooms. In addition, funding will support procurement of two Link 16 terminals for the CSRR land based submarine radio rooms.
- (3) Installation costs are included in procurement (turnkey). Quantities have been updated from PB18 to reflect greater fidelity in procurement unit costs and provide detail of each type of upgrade. Installation costs are included in procurement (turnkey). Quantities have been updated from PB18 to reflect greater fidelity in procurement unit costs and provide detail of each type of upgrade. Tow Cable equipment consists of Tow Cables and Cable Cutters; Nests are used to cradle the buoy. FY18 quantities account for cables only; FY19 includes cables, cutters and nests. Inertial Measurement Unit quantity increase from FY18 to FY19 due as a result of 20 additional Inertial Measurement Units required in FY19 for buoy roll, yaw and pitch stability needs.



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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy                                  |             |                     |                         |                                                                                  |                   |               |                              |               | <b>Date:</b> February 2018                                    |                        |                               |                   |
|------------------------------------------------------------------------------------------------------|-------------|---------------------|-------------------------|----------------------------------------------------------------------------------|-------------------|---------------|------------------------------|---------------|---------------------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                     |             |                     |                         | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                   |               |                              |               | <b>Aggregated Items:</b><br>Submarine Communication Equipment |                        |                               |                   |
| Item Number / Title [DODIC]                                                                          | O<br>C<br>O | FY                  | Contractor and Location | Method/Type<br>or<br>Funding Vehicle                                             | Location of PCO   | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$ K)                                           | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>1) L0035 Antenna Modifications</b>                                                                |             |                     |                         |                                                                                  |                   |               |                              |               |                                                               |                        |                               |                   |
| 1.1) Antenna Modifications <sup>(1)</sup>                                                            |             | 2018                | TBD / TBD               | C / TBD                                                                          | TBD               | Apr 2018      | Sep 2018                     | 65            | 54.662                                                        | Y                      |                               | Mar 2018          |
| 1.1) Antenna Modifications <sup>(1)</sup>                                                            |             | 2019                | TBD / TBD               | C / TBD                                                                          | TBD               | Apr 2019      | Sep 2019                     | 62            | 55.742                                                        | Y                      |                               | Mar 2019          |
| <b>2) Common Submarine Radio Room (CSRR) - Support Systems Modification Kits (Increment 1 Versio</b> |             |                     |                         |                                                                                  |                   |               |                              |               |                                                               |                        |                               |                   |
| 2.2) Equipment - Mod Kits Inc 1 Ver 4                                                                |             | 2018                | SAIC / Charleston, SC   | C / CPFF                                                                         | SSC LANT          | Feb 2018      | Feb 2019                     | 1             | 205.000                                                       | Y                      |                               | Oct 2017          |
| 2.4) Equipment - Undersea Assured Command & Control (UAC2) Solution 1                                |             | 2018                | COMTECH / Tempe, AZ     | C / FFP                                                                          | SPAWAR            | Jan 2018      | Jun 2018                     | 4             | 201.500                                                       | Y                      |                               | Oct 2017          |
| 2.4) Equipment - Undersea Assured Command & Control (UAC2) Solution 1                                |             | 2019                | COMTECH / Tempe, AZ     | C / FFP                                                                          | SPAWAR            | Nov 2018      | Apr 2019                     | 3             | 204.333                                                       | Y                      |                               | Oct 2017          |
| 2.5) Equipment - UAC2 Solution 2                                                                     |             | 2019                | COMTECH / Tempe, AZ     | C / FFP                                                                          | SSC LANT          | Nov 2018      | Nov 2019                     | 4             | 168.000                                                       | Y                      |                               | Oct 2018          |
| 2.6) Equipment - Link 16                                                                             |             | 2019 <sup>(4)</sup> | TBD / TBD               | C / TBD                                                                          | TBD               | Apr 2019      | Apr 2020                     | 2             | 618.000                                                       | Y                      |                               | Jan 2018          |
| <b>3) L0099 Towed Buoy Antenna (TBA) (AN/BRR-6/6B) Reliability Improvements</b>                      |             |                     |                         |                                                                                  |                   |               |                              |               |                                                               |                        |                               |                   |
| 3.2) Tow Cable Equipment & Nests                                                                     |             | 2018                | Unknown / Unknown       | C / FFP                                                                          | NSWC Philadelphia | Apr 2018      | Jul 2018                     | 45            | 63.533                                                        | Y                      |                               | Oct 2017          |
| 3.2) Tow Cable Equipment & Nests                                                                     |             | 2019                | Unknown / Unknown       | C / FFP                                                                          | NSWC Philadelphia | Dec 2018      | Mar 2019                     | 134           | 64.978                                                        | Y                      |                               | Oct 2018          |
| 3.3) Inertial Measurement Unit                                                                       |             | 2018                | Unknown / Unknown       | C / FFP                                                                          | NSWC Philadelphia | Apr 2018      | Jul 2018                     | 10            | 50.600                                                        | Y                      |                               | Sep 2017          |
| 3.3) Inertial Measurement Unit                                                                       |             | 2019                | Unknown / Unknown       | C / FFP                                                                          | NSWC Philadelphia | Dec 2018      | Jan 2019                     | 30            | 52.567                                                        | Y                      |                               | Sep 2017          |
| 3.4) Antenna & Amplifier Improvements                                                                |             | 2017                | GDIT / Fairfax, VA      | C / FFP                                                                          | NUWC Newport      | Oct 2017      | Jan 2018                     | 44            | 49.159                                                        | Y                      |                               | Jul 2017          |
| 3.4) Antenna & Amplifier Improvements                                                                |             | 2018                | GDIT / Fairfax, VA      | C / FFP                                                                          | NUWC Newport      | Dec 2017      | Mar 2018                     | 44            | 50.136                                                        | Y                      |                               | Jul 2017          |
| 3.8) Reel Boxes                                                                                      |             | 2017 <sup>(5)</sup> | Unknown / TBD           | C / FFP                                                                          | NSWC Philadelphia | Nov 2017      | Feb 2018                     | 110           | 2.355                                                         | Y                      |                               | Sep 2017          |

**Footnotes:**

<sup>(4)</sup> Program office will leverage existing contract in the Multifunctional Information Distribution System Program Office to procure the terminals for submarines.

<sup>(5)</sup> Commercial Off The Shelf

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|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|----------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                                                                                  |                    |                      |                        |                |                | <b>Date:</b> February 2018                                        |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                              |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / L0080 OE-538/BRC Inc 2 |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                                                                                  |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                   |                    |                   |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                    | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                 | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 13.010             | 11.852         | 21.929         | 20.465                                                                           | 0.000              | 20.465               | 23.284                 | 23.494         | 24.032         | 24.475                                                            | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                 | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 13.010             | 11.852         | 21.929         | 20.465                                                                           | 0.000              | 20.465               | 23.284                 | 23.494         | 24.032         | 24.475                                                            | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                 | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>13.010</b>      | <b>11.852</b>  | <b>21.929</b>  | <b>20.465</b>                                                                    | <b>0.000</b>       | <b>20.465</b>        | <b>23.284</b>          | <b>23.494</b>  | <b>24.032</b>  | <b>24.475</b>                                                     | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                   |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                 | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                 | -                  | -                 |
| <b>Description:</b><br>Procurement and Installation of OUTBOARD ELECTRONICS (OE)-538 & OE-592 ANTENNA GROUP (OE-538)                          |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                   |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                   |                                |                                |                                |                                                                           |                                |                                |                                | Date: February 2018                                        |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12             |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                | Modification Number / Title:<br>1 / L0080 OE-538/BRC Inc 2 |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                      |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                                            |                                |                                |                                |                                |  |
| Models of Systems Affected: Submarine                                                 |                                |                                |                                | Modification Type: Upgrade                                                |                                |                                |                                | Related RDT&E PEs: 0604503N                                |                                |                                |                                |                                |  |
| Financial Plan                                                                        | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                    | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                       | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0080 OE-538/BRC Inc 2                                      |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| B Kits                                                                                |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Recurring                                                                             |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| 1.1.1) Equipment - OE-538A Antenna Upgrade Kits Installed - NonOrganic <sup>(6)</sup> | 4 / 4.015                      | 7 / 8.577                      | 20 / 9.597                     | 19 / 9.151                                                                | - / -                          | 19 / 9.151                     | 14 / 8.584                     | - / -                                                      | - / -                          | - / -                          | - / -                          | 64 / 39.924                    |  |
| 1.1.2) Equipment - OE-538A Antenna Upgrade Kits Not Installed - Organic               | 7 / 6.974                      | - / -                          | 10 / 4.798                     | - / -                                                                     | - / -                          | - / -                          | 2 / 1.276                      | - / -                                                      | - / -                          | - / -                          | - / -                          | 19 / 13.048                    |  |
| 1.1.3) Equipment - OE-538A RFDACS Upgrade Kits Installed - NonOrganic <sup>(7)</sup>  | - / -                          | 2 / 0.977                      | 8 / 4.014                      | 12 / 6.053                                                                | - / -                          | 12 / 6.053                     | 10 / 5.788                     | - / -                                                      | - / -                          | - / -                          | - / -                          | 32 / 16.832                    |  |
| 1.1.4) Equipment - OE-538A RFDACS Upgrade Kits Not Installed - Organic                | - / -                          | 1 / 0.489                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                      | - / -                          | - / -                          | - / -                          | 1 / 0.489                      |  |
| 1.1.5) Equipment - OE-538B Antenna Upgrade Kits Installed - NonOrganic                | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | 29 / 16.467                                                | 27 / 15.327                    | 22 / 13.290                    | Continuing                     | Continuing                     |  |
| 1.1.6) Equipment - OE-538B Antenna Upgrade Kits Not Installed - Organic               | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | 2 / 1.161                                                  | 5 / 2.914                      | 9 / 5.613                      | Continuing                     | Continuing                     |  |
| Subtotal: Recurring                                                                   | - / 10.989                     | - / 10.043                     | - / 18.409                     | - / 15.204                                                                | - / -                          | - / 15.204                     | - / 15.648                     | - / 17.628                                                 | - / 18.241                     | - / 18.903                     | Continuing                     | Continuing                     |  |
| Subtotal: L0080 OE-538/BRC Inc 2                                                      | 11 / 10.989                    | 10 / 10.043                    | 38 / 18.409                    | 31 / 15.204                                                               | - / -                          | 31 / 15.204                    | 26 / 15.648                    | 31 / 17.628                                                | 32 / 18.241                    | 31 / 18.903                    | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                                         | - / 10.989                     | - / 10.043                     | - / 18.409                     | - / 15.204                                                                | - / -                          | - / 15.204                     | - / 15.648                     | - / 17.628                                                 | - / 18.241                     | - / 18.903                     | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                                      |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| 2.1) Production Support                                                               | - / 0.814                      | - / 0.632                      | - / 1.096                      | - / 1.043                                                                 | - / -                          | - / 1.043                      | - / 1.181                      | - / 1.193                                                  | - / 1.222                      | - / 1.245                      | Continuing                     | Continuing                     |  |
| 2.2) Other (DSA) <sup>(8)</sup>                                                       | - / 0.080                      | - / 0.040                      | - / 0.105                      | - / 0.272                                                                 | - / -                          | - / 0.272                      | - / 0.276                      | - / 0.240                                                  | - / 0.400                      | - / 0.364                      | Continuing                     | Continuing                     |  |
| 2.3) Support Prior Years                                                              | - / 0.700                      | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                      | - / -                          | - / -                          | - / -                          | - / 0.700                      |  |
| Subtotal: Support                                                                     | - / 1.594                      | - / 0.672                      | - / 1.201                      | - / 1.315                                                                 | - / -                          | - / 1.315                      | - / 1.457                      | - / 1.433                                                  | - / 1.622                      | - / 1.609                      | Continuing                     | Continuing                     |  |
| Installation                                                                          |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0080 OE-538/BRC Inc 2                                      | - / 0.427                      | - / 1.137                      | - / 2.319                      | - / 3.946                                                                 | - / 0.000                      | - / 3.946                      | - / 6.179                      | - / 4.433                                                  | - / 4.169                      | - / 3.963                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                                | - / 0.427                      | - / 1.137                      | - / 2.319                      | - / 3.946                                                                 | - / -                          | - / 3.946                      | - / 6.179                      | - / 4.433                                                  | - / 4.169                      | - / 3.963                      | Continuing                     | Continuing                     |  |
| Total                                                                                 |                                |                                |                                |                                                                           |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                                     | 13.010                         | 11.852                         | 21.929                         | 20.465                                                                    | 0.000                          | 20.465                         | 23.284                         | 23.494                                                     | 24.032                         | 24.475                         | Continuing                     | Continuing                     |  |

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|-------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------|--------------------------------|--------------------------------|-----------|----------------|-------------------------------------------------------------------|-----------|-----------|----------------|-----------|----------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                        |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                | <b>Date:</b> February 2018                         |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                  |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                |                                |                                                    |                                |                                |           |                | <b>Modification Number / Title:</b><br>1 / L0080 OE-538/BRC Inc 2 |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                             |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> L0080 OE-538/BRC Inc 2                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                   |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: Submarine Antenna Joint Venture                                                                |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                | Manufacturer Location: Marion, MA & Manchester, NH |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 5                                                                            |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                | Production Leadtime (in Months): 12                |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                      | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                   | <b>FY 2022</b>                 | <b>FY 2023</b>                 |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                                    | May 2017                       | Mar 2018                       | Mar 2019                       |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                    | May 2018                       | Mar 2019                       | Mar 2020                       |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                   |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: OE-538                                               |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                          | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                               | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                     | <b>To Complete</b>             | <b>Total</b>                   |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                       | 2 / 0.427                      | 2 / 1.137                      | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                              | 0 / 0.000                      | 4 / 1.564                      |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                           | - / -                          | - / -                          | 9 / 2.319                      | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                              | 0 / 0.000                      | 9 / 2.319                      |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                           | - / -                          | - / -                          | - / -                          | 28 / 3.946                     | 0 / 0.000                                                                        | 28 / 3.946                     | - / -                          | - / -                          | - / -                          | - / -                                              | 0 / 0.000                      | 28 / 3.946                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | 31 / 6.179                     | - / -                          | - / -                          | - / -                                              | 0 / 0.000                      | 31 / 6.179                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 24 / 4.433                     | - / -                          | - / -                                              | 0 / 0.000                      | 24 / 4.433                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | 29 / 4.169                     | - / -                                              | 0 / 0.000                      | 29 / 4.169                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | 27 / 3.963                                         | 0 / 0.000                      | 27 / 3.963                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                              | Continuing                     | Continuing                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                              | Continuing                     | Continuing                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                             | 2 / 0.427                      | 2 / 1.137                      | 9 / 2.319                      | 28 / 3.946                     | 0 / 0.000                                                                        | 28 / 3.946                     | 31 / 6.179                     | 24 / 4.433                     | 29 / 4.169                     | 27 / 3.963                                         | Continuing                     | Continuing                     |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                      |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           |                                  |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                   | <b>PYS</b>                     | <b>FY 2017</b>                 |                                |                                |                                                                                  | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                     |                                |                                |           | <b>FY 2020</b> |                                                                   |           |           | <b>FY 2021</b> |           |                                  |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                   |                                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                                        | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                          | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>                                                         | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                        | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                | -                              | 2                              | -                              | -                              | 2                                                                                | -                              | -                              | 5                              | 4                              | -                                                  | 10                             | 9                              | 9         | -              | 14                                                                | 9         | 8         | -              | 7         | 7                                | 10        | -              | 10        | 10        | 9         | -              | 11        | 8         | 8         | Cont.     | Cont.      |
| Out                                                                                                               | -                              | 2                              | -                              | -                              | 2                                                                                | -                              | -                              | 5                              | 4                              | -                                                  | 10                             | 9                              | 9         | -              | 14                                                                | 9         | 8         | -              | 7         | 7                                | 10        | -              | 10        | 10        | 9         | -              | 11        | 8         | 8         | Cont.     | Cont.      |
| <b>Method of Implementation (Organic):</b> Equipment - OE-538A Antenna Upgrade Kits Not Installed - Not Installed |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           | <b>Installation Quantity:</b> 19 |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation (Organic):</b> Equipment - OE-538A RFDACS Upgrade Kits Not Installed - Not Installed  |                                |                                |                                |                                |                                                                                  |                                |                                |                                |                                |                                                    |                                |                                |           |                |                                                                   |           |           |                |           | <b>Installation Quantity:</b> 1  |           |                |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                        |                                                                                  | <b>Date:</b> February 2018                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                  | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment | <b>Modification Number / Title:</b><br>1 / L0080 OE-538/BRC Inc 2 |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                           |                                                                                  | <b>MDAP/MAIS Code:</b>                                            |
| <b>Modification Item 1 of 1:</b> L0080 OE-538/BRC Inc 2                                                           |                                                                                  |                                                                   |
| <b>Installation Information</b>                                                                                   |                                                                                  |                                                                   |
| <b>Method of Implementation (Organic):</b> Equipment - OE-538B Antenna Upgrade Kits Not Installed - Not Installed |                                                                                  | <b>Installation Quantity:</b> 0                                   |

**Footnotes:**

- <sup>(6)</sup> OE-538A, OE-538B, and Radio Frequency Distribution and Control System (RFDACS) unit cost varies by submarine class and economic quantity order. All OE-538A upgraded antennas will be upgraded to OE-538B. Installation schedule reflects both OE-538A Antenna and RFDACS upgrade kits. Two (2) antennas procured in FY18 will not be installed until FY20. These antennas were procured in FY18 vice FY19 to meet the early FY20 installation dates. Between PB18 and PB19, the budget was updated to break out Antenna Upgrades "installed" and "not installed", additionally, due to economic order quantity discounts, unit costs were updated. The antennas that are not installed are part of the rotatable pool required to meet implementation plan.
- <sup>(7)</sup> RFDACS unit cost varies based on submarine class. RFDACS procurement in support of OE-538A implementation outside the normal CSRR version upgrade.
- <sup>(8)</sup> Increase in support cost due to increase in installations from 9 in FY18 to 28 in FY19.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                                                                                  |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                        |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                              |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / L0087 Submarine High Data Rate Antenna |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                                                                                  |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                   |                    |                   |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                    | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 38.145             | 6.438          | 0.144          | 0.000                                                                            | 0.000              | 0.000                | 0.000                  | 7.370          | 8.004          | 8.167                                                                             | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 38.145             | 6.438          | 0.144          | 0.000                                                                            | 0.000              | 0.000                | 0.000                  | 7.370          | 8.004          | 8.167                                                                             | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>38.145</b>      | <b>6.438</b>   | <b>0.144</b>   | <b>0.000</b>                                                                     | <b>0.000</b>       | <b>0.000</b>         | <b>0.000</b>           | <b>7.370</b>   | <b>8.004</b>   | <b>8.167</b>                                                                      | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                                   |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| <b>Description:</b><br>Procurement and Installation of Submarine High Data Rate Antenna (SubHDR)                                              |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                                   |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                           |                                |                                |                                | Date: February 2018                                                        |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12 |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                | Modification Number / Title:<br>2 / L0087 Submarine High Data Rate Antenna |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                                                            |                                |                                |                                |                                |  |
| Models of Systems Affected: Submarine                                     |                                |                                |                                | Modification Type: Upgrade                                                |                                |                                |                                | Related RDT&E PEs: 0604503N                                                |                                |                                |                                |                                |  |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                    | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                               |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0087 Submarine High Data Rate Antenna          |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| B Kits                                                                    |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Recurring                                                                 |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| 1.1.1) Replacement Radomes Installed - NonOrganic                         | 93 / 23.540                    | 9 / 2.940                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                          | 102 / 26.480                   |  |
| 1.1.2) Replacement Radomes Not Installed - Organic                        | - / -                          | 10 / 2.850                     | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                          | 10 / 2.850                     |  |
| 1.1.3) RMA Kits - NonOrganic                                              | - / -                          | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | 11 / 6.960                                                                 | 12 / 7.413                     | 12 / 7.464                     | Continuing                     | Continuing                     |  |
| Subtotal: Recurring                                                       | - / 23.540                     | - / 5.790                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / 6.960                                                                  | - / 7.413                      | - / 7.464                      | Continuing                     | Continuing                     |  |
| Subtotal: L0087 Submarine High Data Rate Antenna                          | 93 / 23.540                    | 19 / 5.790                     | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | 11 / 6.960                                                                 | 12 / 7.413                     | 12 / 7.464                     | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                             | - / 23.540                     | - / 5.790                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / 6.960                                                                  | - / 7.413                      | - / 7.464                      | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| 2.1) Production Support                                                   | - / 7.091                      | - / 0.190                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / 0.235                                                                  | - / 0.218                      | - / 0.308                      | Continuing                     | Continuing                     |  |
| 2.2) Other (DSA)                                                          | - / 6.419                      | - / 0.170                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / 0.175                                                                  | - / 0.175                      | - / 0.175                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                         | - / 13.510                     | - / 0.360                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / 0.410                                                                  | - / 0.393                      | - / 0.483                      | Continuing                     | Continuing                     |  |
| Installation                                                              |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0087 Submarine High Data Rate Antenna          | - / 1.095                      | - / 0.288                      | - / 0.144                      | - / 0.000                                                                 | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                  | - / 0.198                      | - / 0.220                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                    | - / 1.095                      | - / 0.288                      | - / 0.144                      | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / 0.198                      | - / 0.220                      | Continuing                     | Continuing                     |  |
| Total                                                                     |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                         | 38.145                         | 6.438                          | 0.144                          | 0.000                                                                     | 0.000                          | 0.000                          | 0.000                          | 7.370                                                                      | 8.004                          | 8.167                          | Continuing                     | Continuing                     |  |
|                                                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |

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|---------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|----------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                              |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                       |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                        |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |           |                                |           |                                |                                        |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / L0087 Submarine High Data Rate Antenna |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                 |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> L0087 Submarine High Data Rate Antenna                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | Manufacturer Location: Marlborough, MA |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 6                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | Production Leadtime (in Months): 12    |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                            |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                 |                                        |                                |           | <b>FY 2021</b>                 |           |                                                                                   |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                          |            | Apr 2017                       |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                          |            | Apr 2018                       |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Submarine High Data Rate Antenna |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                               |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                        | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                    |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                         |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                    |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                             |            | 75 / 1.095                     |           | 18 / 0.288                     |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | 0 / 0.000                      |           | 93 / 1.383                     |           |                |           |           |           |           |            |
| FY 2017                                                                                                 |            | - / -                          |           | - / -                          |           | 9 / 0.144                      |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | 0 / 0.000                      |           | 9 / 0.144                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | 11 / 0.198                     |           | - / -                                                                             |           | 0 / 0.000                      |           | 11 / 0.198                     |           |                |           |           |           |           |            |
| FY 2022                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | 12 / 0.220                                                                        |           | 0 / 0.000                      |           | 12 / 0.220                     |           |                |           |           |           |           |            |
| FY 2023                                                                                                 |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | 12 / 0.216                     |           | 12 / 0.216                     |           |                |           |           |           |           |            |
| To Complete                                                                                             |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                             |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| Total                                                                                                   |            | 75 / 1.095                     |           | 18 / 0.288                     |           | 9 / 0.144                      |           | - / -                          |           | - / -                                                                            |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | 11 / 0.198                                                                        |           | 12 / 0.220                     |           | Continuing                     |           | Continuing     |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                 |                                        |                                |           | <b>FY 2021</b>                 |           |                                                                                   |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                         |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                        | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                              | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                         | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                      | 72         | 3                              | -         | 4                              | 14        | -                              | -         | 3                              | 6         | -                                                                                | -         | -                              | -         | -                              | -                                      | -                              | -         | -                              | -         | -                                                                                 | -         | -                              | -         | 3                              | 8         | -              | -         | 3         | 9         | Cont.     | Cont.      |
| Out                                                                                                     | 72         | 3                              | -         | 4                              | 14        | -                              | -         | 3                              | 6         | -                                                                                | -         | -                              | -         | -                              | -                                      | -                              | -         | -                              | -         | -                                                                                 | -         | -                              | -         | 3                              | 8         | -              | -         | 3         | 9         | Cont.     | Cont.      |
| <b>Method of Implementation (Organic):</b> Replacement Radomes Not Installed - Not Installed            |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                                        |                                |           |                                |           | <b>Installation Quantity:</b> 10                                                  |           |                                |           |                                |           |                |           |           |           |           |            |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                                                                                  |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                     |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                              |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                                                                                  |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                |                    |                   |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                 | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 65.795             | 12.896         | 14.452         | 9.472                                                                            | 0.000              | 9.472                | 3.581                  | 2.476          | 2.757          | 2.131                                                                          | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 65.795             | 12.896         | 14.452         | 9.472                                                                            | 0.000              | 9.472                | 3.581                  | 2.476          | 2.757          | 2.131                                                                          | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>65.795</b>      | <b>12.896</b>  | <b>14.452</b>  | <b>9.472</b>                                                                     | <b>0.000</b>       | <b>9.472</b>         | <b>3.581</b>           | <b>2.476</b>   | <b>2.757</b>   | <b>2.131</b>                                                                   | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                                |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                                                                                | -                  | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| <b>Description:</b><br>Procurement and Installation of CSRR upgrades on Ohio Class Ballistic Missile Submarine (Nuclear) (SSBN)               |                    |                |                |                                                                                  |                    |                      |                        |                |                |                                                                                |                    |                   |

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|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                     |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                  |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                |                                |                                |  |
| <b>Models of Systems Affected:</b> Submarine                                     |                                |                                |                                | <b>Modification Type:</b> Various                                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0604503N |                                |                                                                                |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSBN (OHIO) Mod Upgrades             |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| 1.1.1) Equipment - Mod Kits Inc 1 Ver 3 - NonOrganic <sup>(9)</sup>              | 10 / 19.965                    | 4 / 8.770                      | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                          | - / -                          | 14 / 28.735                    |  |
| 1.1.2) Equipment - Mod Kits Inc 1 Ver 4 - NonOrganic <sup>(10)</sup>             | - / -                          | - / -                          | 1 / 0.265                      | 5 / 1.366                                                                        | - / -                          | 5 / 1.366                      | - / -                          | 1 / 0.290                              | 1 / 0.299                      | - / -                                                                          | Continuing                     | Continuing                     |  |
| 1.1.3) Equipment - RFDACS Mod Kits (Inc 1 Ver 4) - Organic <sup>(11)</sup>       | - / -                          | - / -                          | 1 / 0.550                      | 5 / 2.833                                                                        | - / -                          | 5 / 2.833                      | - / -                          | 1 / 0.601                              | 1 / 0.619                      | - / -                                                                          | Continuing                     | Continuing                     |  |
| 1.1.4) Equipment - UAC2 Solution 1 - NonOrganic                                  | - / -                          | - / -                          | 12 / 1.152                     | 1 / 0.099                                                                        | - / -                          | 1 / 0.099                      | 1 / 0.102                      | - / -                                  | - / -                          | - / -                                                                          | Continuing                     | Continuing                     |  |
| <b>Subtotal: Recurring</b>                                                       | - / 19.965                     | - / 8.770                      | - / 1.967                      | - / 4.298                                                                        | - / -                          | - / 4.298                      | - / 0.102                      | - / 0.891                              | - / 0.918                      | - / -                                                                          | Continuing                     | Continuing                     |  |
| <b>Subtotal: L0084 CSRR-SSBN (OHIO) Mod Upgrades</b>                             | 10 / 19.965                    | 4 / 8.770                      | 14 / 1.967                     | 11 / 4.298                                                                       | - / -                          | 11 / 4.298                     | 1 / 0.102                      | 2 / 0.891                              | 2 / 0.918                      | - / -                                                                          | Continuing                     | Continuing                     |  |
| <b>Subtotal: Procurement, All Modification Items</b>                             | - / 19.965                     | - / 8.770                      | - / 1.967                      | - / 4.298                                                                        | - / -                          | - / 4.298                      | - / 0.102                      | - / 0.891                              | - / 0.918                      | - / -                                                                          | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| 2.1) ShipALT/DSA Nonrecurring <sup>(12)</sup>                                    | - / 5.012                      | - / 0.450                      | - / 1.325                      | - / 0.256                                                                        | - / -                          | - / 0.256                      | - / 0.576                      | - / 0.598                              | - / -                          | - / 0.545                                                                      | Continuing                     | Continuing                     |  |
| 2.2) Enterprise Change Request <sup>(13)</sup>                                   | - / 6.010                      | - / 0.531                      | - / 1.137                      | - / 0.684                                                                        | - / -                          | - / 0.684                      | - / 0.699                      | - / 0.672                              | - / 0.811                      | - / 0.617                                                                      | Continuing                     | Continuing                     |  |
| 2.3) Data/Logistics <sup>(14)</sup>                                              | - / 5.575                      | - / 0.624                      | - / 0.507                      | - / 0.491                                                                        | - / -                          | - / 0.491                      | - / 0.106                      | - / 0.113                              | - / 0.240                      | - / 0.250                                                                      | Continuing                     | Continuing                     |  |
| 2.4) Production Support                                                          | - / 11.125                     | - / 0.511                      | - / 0.117                      | - / 0.257                                                                        | - / -                          | - / 0.257                      | - / 0.006                      | - / 0.053                              | - / 0.055                      | - / -                                                                          | Continuing                     | Continuing                     |  |
| 2.5) Other (DSA Recurring)                                                       | - / 7.626                      | - / 0.445                      | - / 0.762                      | - / 0.672                                                                        | - / -                          | - / 0.672                      | - / 0.299                      | - / 0.023                              | - / 0.378                      | - / 0.354                                                                      | Continuing                     | Continuing                     |  |
| <b>Subtotal: Support</b>                                                         | - / 35.348                     | - / 2.561                      | - / 3.848                      | - / 2.360                                                                        | - / -                          | - / 2.360                      | - / 1.686                      | - / 1.459                              | - / 1.484                      | - / 1.766                                                                      | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSBN (OHIO) Mod Upgrades             | - / 10.482                     | - / 1.565                      | - / 8.637                      | - / 2.814                                                                        | - / 0.000                      | - / 2.814                      | - / 1.793                      | - / 0.126                              | - / 0.355                      | - / 0.365                                                                      | Continuing                     | Continuing                     |  |
| <b>Subtotal: Installation</b>                                                    | - / 10.482                     | - / 1.565                      | - / 8.637                      | - / 2.814                                                                        | - / -                          | - / 2.814                      | - / 1.793                      | - / 0.126                              | - / 0.355                      | - / 0.365                                                                      | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                                  |                                |                                |                                |                                        |                                |                                                                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>65.795</b>                  | <b>12.896</b>                  | <b>14.452</b>                  | <b>9.472</b>                                                                     | <b>0.000</b>                   | <b>9.472</b>                   | <b>3.581</b>                   | <b>2.476</b>                           | <b>2.757</b>                   | <b>2.131</b>                                                                   | <b>Continuing</b>              | <b>Continuing</b>              |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018            |                                                                                |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                       | <b>Modification Number / Title:</b><br>3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                                |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSBN (OHIO) Mod Upgrades             |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| Manufacturer Name: SAIC (Mod Kits) <sup>(15)</sup>                               |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Charleston, SC |                                                                                |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |
| Contract Dates                                                                   | Jan 2017                       | Apr 2018                       | Dec 2018                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| Delivery Dates                                                                   | Jan 2018                       | Apr 2019                       | Dec 2019                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| Manufacturer Name: COMTECH (UAC2) <sup>(16)</sup>                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Tempe, AZ      |                                                                                |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |
| Contract Dates                                                                   |                                | Jan 2018                       | Nov 2018                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                | Sep 2018                       | Mar 2020                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Installation Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SSBN Ohio |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                 | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                      | 7 / 10.482                     | 1 / 1.565                      | 2 / 3.224                      | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 10 / 15.271                    |
| FY 2017                                                                          | - / -                          | - / -                          | 3 / 4.838                      | 1 / 1.661                                                                        | 0 / 0.000                      | 1 / 1.661                      | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 4 / 6.499                      |
| FY 2018                                                                          | - / -                          | - / -                          | 5 / 0.575                      | 8 / 1.153                                                                        | 0 / 0.000                      | 8 / 1.153                      | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 13 / 1.728                     |
| FY 2019                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 6 / 1.793                             | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 1.793                      |
| FY 2020                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | 1 / 0.126                                                                      | - / -                          | - / -                          | 0 / 0.000                      | 1 / 0.126                      |
| FY 2021                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | 1 / 0.355                      | - / -                          | 0 / 0.000                      | 1 / 0.355                      |
| FY 2022                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | 1 / 0.365                      | 0 / 0.000                      | 1 / 0.365                      |
| FY 2023                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total                                                                            | 7 / 10.482                     | 1 / 1.565                      | 10 / 8.637                     | 9 / 2.814                                                                        | 0 / 0.000                      | 9 / 2.814                      | 6 / 1.793                             | 1 / 0.126                                                                      | 1 / 0.355                      | 1 / 0.365                      | Continuing                     | Continuing                     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           | <b>Date:</b> February 2018      |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                |           |           |           |                |           |           |           | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |           |           |           |                |                        |           |           |                |           | <b>Modification Number / Title:</b><br>3 / L0084 CSRR-SSBN (OHIO) Mod Upgrades |           |                                 |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSBN (OHIO) Mod Upgrades                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SSBN Ohio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PYS</b> | <b>FY 2017</b> |           |           |           | <b>FY 2018</b> |           |           |           | <b>FY 2019</b>                                                                   |           |           |           | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                                |           | <b>FY 2022</b>                  |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                                        | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                                      | <b>Q4</b> | <b>Q1</b>                       | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5          | 1              | 1         | -         | 1         | 2              | -         | -         | 3         | 5                                                                                | 6         | 2         | 1         | -              | 1                      | 3         | 2         | -              | -         | 1                                                                              | -         | -                               | 1         | -         | -         | -              | 1         | -         | -         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5          | 1              | 1         | -         | 1         | -              | 2         | -         | 3         | 5                                                                                | 6         | 2         | 1         | -              | 1                      | 3         | 2         | -              | -         | 1                                                                              | -         | -                               | 1         | -         | -         | -              | 1         | -         | -         | Cont.     | Cont.      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation (Organic):</b> Equipment - RFDACS Mod Kits (Inc 1 Ver 4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           | <b>Installation Quantity:</b> 0 |           |           |           |                |           |           |           |           |            |
| <p><b>Footnotes:</b></p> <p>(9) Quantities reflect alignment with fleet installation availabilities. Submarine availability windows fluctuate to optimize SSBN Operational Availability (Ao). The number and class of submarines available in any given year are very limited and, consequently, the ability to shift installations from one submarine to another is often not possible. Three CSRR Inc1V3 procurements in FY17 will not install until Q4 FY18 and one in Q2 FY19 due to Fleet rescheduling of availabilities.</p> <p>(10) The unit cost variance between the CSRR Increment 1 Version 3 and Version 4 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. FY19 includes procurement of five CSRR Increment 1 Version 4 modernization kits.</p> <p>(11) FY19 includes procurement of five Radio Frequency Distribution and Control Systems (RFDACS) to address Reliability, Maintainability, Availability (RMA) and Environmental Qualification Testing (EQT) deficiencies. RFDACS is procured as a separate CSRR Component but fielded as part of the CSRR Inc1v4 modernization kit installations.</p> <p>(12) Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is requested by the planning yard 12 months prior to install. It is also required the year that the first modernization kit or Undersea Assured Command &amp; Control (UAC2) solution is procured for each CSRR version on each Class to meet ship construction deadlines.</p> <p>(13) The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.</p> <p>(14) Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit or UAC2 solution is procured for each CSRR version on each submarine class.</p> <p>(15) Production lead time for CSRR upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.</p> <p>(16) Production lead time for UAC2 Solution 1 and 2 varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.</p> |            |                |           |           |           |                |           |           |           |                                                                                  |           |           |           |                |                        |           |           |                |           |                                                                                |           |                                 |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                     |                                                                                  |                      |                        |                |                | <b>Date:</b> February 2018                                                     |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                              |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                     |                                                                                  |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                |                    |                   |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                               | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                 | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 31.948             | 1.116          | 5.123          | 3.162               | 0.000                                                                            | 3.162                | 5.357                  | 4.021          | 1.699          | 0.000                                                                          | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 31.948             | 1.116          | 5.123          | 3.162               | 0.000                                                                            | 3.162                | 5.357                  | 4.021          | 1.699          | 0.000                                                                          | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>31.948</b>      | <b>1.116</b>   | <b>5.123</b>   | <b>3.162</b>        | <b>0.000</b>                                                                     | <b>3.162</b>         | <b>5.357</b>           | <b>4.021</b>   | <b>1.699</b>   | <b>0.000</b>                                                                   | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                     |                                                                                  |                      |                        |                |                |                                                                                |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                              | -                  | -                 |
| <b>Description:</b><br>Procurement and Installation of CSRR and upgrades on SSGN (OHIO) Class Submarines                                      |                    |                |                |                     |                                                                                  |                      |                        |                |                |                                                                                |                    |                   |

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|----------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                        |                                |                                |                                |                                                                           |                                |                                |                                | Date: February 2018                                                     |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12  |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                | Modification Number / Title:<br>4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                           |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                                                         |                                |                                |                                |                                |  |
| Models of Systems Affected: Submarine                                      |                                |                                |                                | Modification Type: Various                                                |                                |                                |                                | Related RDT&E PEs: 0604503N                                             |                                |                                |                                |                                |  |
| Financial Plan                                                             | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                 | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0084 CSRR-SSGN (OHIO) Mod Upgrades              |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| B Kits                                                                     |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| Recurring                                                                  |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| 1.1.1) Equipment - Mod Kits (Prior Years) - NonOrganic                     | 12 / 13.732                    | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                   | - / -                          | - / -                          | - / -                          | 12 / 13.732                    |  |
| 1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic <sup>(17)</sup> | - / -                          | - / -                          | - / -                          | 2 / 0.633                                                                 | - / -                          | 2 / 0.633                      | 2 / 0.652                      | - / -                                                                   | - / -                          | - / -                          | - / -                          | 4 / 1.285                      |  |
| 1.1.3) Equipment - UAC2 Solution 1 - NonOrganic                            | - / -                          | - / -                          | 2 / 0.384                      | 2 / 0.396                                                                 | - / -                          | 2 / 0.396                      | - / -                          | - / -                                                                   | - / -                          | - / -                          | - / -                          | 4 / 0.780                      |  |
| 1.1.4) Equipment - UAC2 Solution 2 - NonOrganic                            | - / -                          | - / -                          | - / -                          | 1 / 0.272                                                                 | - / -                          | 1 / 0.272                      | - / -                          | - / -                                                                   | - / -                          | - / -                          | - / -                          | 1 / 0.272                      |  |
| 1.1.5) Equipment - Link 16 - NonOrganic                                    | - / -                          | - / -                          | - / -                          | 1 / 0.618                                                                 | - / -                          | 1 / 0.618                      | 2 / 1.273                      | 1 / 0.656                                                               | - / -                          | - / -                          | - / -                          | 4 / 2.547                      |  |
| Subtotal: Recurring                                                        | - / 13.732                     | - / -                          | - / 0.384                      | - / 1.919                                                                 | - / -                          | - / 1.919                      | - / 1.925                      | - / 0.656                                                               | - / -                          | - / -                          | - / 0.000                      | - / 18.616                     |  |
| Subtotal: L0084 CSRR-SSGN (OHIO) Mod Upgrades                              | 12 / 13.732                    | - / -                          | 2 / 0.384                      | 6 / 1.919                                                                 | - / -                          | 6 / 1.919                      | 4 / 1.925                      | 1 / 0.656                                                               | - / -                          | - / -                          | - / -                          | 25 / 18.616                    |  |
| Subtotal: Procurement, All Modification Items                              | - / 13.732                     | - / -                          | - / 0.384                      | - / 1.919                                                                 | - / -                          | - / 1.919                      | - / 1.925                      | - / 0.656                                                               | - / -                          | - / -                          | - / 0.000                      | - / 18.616                     |  |
| Support (All Modification Items)                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| 2.1) Enterprise Change Request/Nonrecurring <sup>(18)</sup>                | - / 2.793                      | - / 0.064                      | - / 1.117                      | - / 0.535                                                                 | - / -                          | - / 0.535                      | - / 0.730                      | - / 0.777                                                               | - / 0.736                      | - / -                          | Continuing                     | Continuing                     |  |
| 2.2) ShipALT/DSA Nonrecurring <sup>(19)</sup>                              | - / 1.621                      | - / 0.522                      | - / 2.626                      | - / 0.230                                                                 | - / -                          | - / 0.230                      | - / 0.616                      | - / 0.623                                                               | - / -                          | - / -                          | Continuing                     | Continuing                     |  |
| 2.3) Data/Logistics <sup>(20)</sup>                                        | - / 3.617                      | - / 0.530                      | - / 0.570                      | - / 0.088                                                                 | - / -                          | - / 0.088                      | - / 0.206                      | - / 0.192                                                               | - / 0.248                      | - / -                          | Continuing                     | Continuing                     |  |
| 2.4) Production Support                                                    | - / 1.242                      | - / -                          | - / 0.023                      | - / 0.115                                                                 | - / -                          | - / 0.115                      | - / 0.116                      | - / 0.039                                                               | - / -                          | - / -                          | Continuing                     | Continuing                     |  |
| 2.5) Other (DSA Recurring)                                                 | - / 1.559                      | - / -                          | - / 0.261                      | - / 0.129                                                                 | - / -                          | - / 0.129                      | - / 0.286                      | - / 0.259                                                               | - / 0.310                      | - / -                          | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                          | - / 10.832                     | - / 1.116                      | - / 4.597                      | - / 1.097                                                                 | - / -                          | - / 1.097                      | - / 1.954                      | - / 1.890                                                               | - / 1.294                      | - / -                          | Continuing                     | Continuing                     |  |
| Installation                                                               |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0084 CSRR-SSGN (OHIO) Mod Upgrades              | - / 7.384                      | - / 0.000                      | - / 0.142                      | - / 0.146                                                                 | - / 0.000                      | - / 0.146                      | - / 1.478                      | - / 1.475                                                               | - / 0.405                      | - / 0.000                      | - / 0.000                      | - / 11.030                     |  |
| Subtotal: Installation                                                     | - / 7.384                      | - / -                          | - / 0.142                      | - / 0.146                                                                 | - / -                          | - / 0.146                      | - / 1.478                      | - / 1.475                                                               | - / 0.405                      | - / -                          | - / 0.000                      | - / 11.030                     |  |
| Total                                                                      |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                          | 31.948                         | 1.116                          | 5.123                          | 3.162                                                                     | 0.000                          | 3.162                          | 5.357                          | 4.021                                                                   | 1.699                          | 0.000                          | Continuing                     | Continuing                     |  |
|                                                                            |                                |                                |                                |                                                                           |                                |                                |                                |                                                                         |                                |                                |                                |                                |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018            |                                                                                |                                |                                |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                       | <b>Modification Number / Title:</b><br>4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades |                                |                                |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                                |                                |                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSGN (OHIO) Mod Upgrades             |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| <b>Manufacturer Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| Manufacturer Name: SAIC (Mod Kits) <sup>(21)</sup>                               |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Charleston, SC |                                                                                |                                |                                |                                |                                |  |
| Administrative Leadtime (in Months): 5                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                |                                |                                |                                |                                |  |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |  |
| Contract Dates                                                                   |                                |                                | Mar 2019                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| Delivery Dates                                                                   |                                |                                | Mar 2020                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| Manufacturer Name: COMTECH (UAC2) <sup>(22)</sup>                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Tempe, AZ      |                                                                                |                                |                                |                                |                                |  |
| Administrative Leadtime (in Months): 5                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                |                                |                                |                                |                                |  |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |  |
| Contract Dates                                                                   |                                | Jan 2018                       | Nov 2018                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| Delivery Dates                                                                   |                                | Sep 2018                       | Mar 2020                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| Manufacturer Name: TBD (Link 16)                                                 |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: TBD            |                                                                                |                                |                                |                                |                                |  |
| Administrative Leadtime (in Months): 6                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                |                                |                                |                                |                                |  |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                |                                |                                |                                |                                |  |
| Contract Dates                                                                   |                                |                                | Apr 2019                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| Delivery Dates                                                                   |                                |                                | Apr 2020                       |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| <b>Installation Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SSGN OHIO |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                |                                |                                |                                |                                |  |
| <b>Installation Cost</b>                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                 | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Prior Years                                                                      | 12 / 7.384                     | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 12 / 7.384                     |  |
| FY 2017                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | - / -                          | - / -                          |  |
| FY 2018                                                                          | - / -                          | - / -                          | 1 / 0.142                      | 1 / 0.146                                                                        | 0 / 0.000                      | 1 / 0.146                      | - / -                                 | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.288                      |  |
| FY 2019                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 6 / 1.478                             | - / -                                                                          | - / -                          | - / -                          | 0 / 0.000                      | 6 / 1.478                      |  |
| FY 2020                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | 4 / 1.475                                                                      | - / -                          | - / -                          | 0 / 0.000                      | 4 / 1.475                      |  |
| FY 2021                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | 1 / 0.405                      | - / -                          | 0 / 0.000                      | 1 / 0.405                      |  |
| FY 2022                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | - / -                          | - / -                          |  |
| FY 2023                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | - / -                          | - / -                          |  |
| To Complete                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                          | - / -                          | - / -                          | - / -                          | - / -                          |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                       |           |                                |           |                                |                        |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |           |                                |           |                                |                        |                                |           |                                |           | <b>Modification Number / Title:</b><br>4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                | <b>MDAP/MAIS Code:</b> |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSGN (OHIO) Mod Upgrades                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                        |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                        |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SSGN OHIO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                        |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                               |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                        | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                 |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                   |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                 |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | 12 / 7.384                     |           | - / -                          |           | 1 / 0.142                      |           | 1 / 0.146                      |           | 0 / 0.000                                                                        |           | 1 / 0.146                      |           | 6 / 1.478                      |                        | 4 / 1.475                      |           | 1 / 0.405                      |           | - / -                                                                          |           | 0 / 0.000                      |           | 25 / 11.030                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                        |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                   |           |                                |           | <b>FY 2020</b>                 |                        |                                |           | <b>FY 2021</b>                 |           |                                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                        | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>              | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12         | -                              | -         | -                              | -         | -                              | -         | -                              | 1         | 1                                                                                | -         | -                              | -         | -                              | -                      | 3                              | 3         | -                              | -         | -                                                                              | 4         | -                              | -         | -                              | 1         | -              | -         | -         | -         | -         | 25         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12         | -                              | -         | -                              | -         | -                              | -         | -                              | 1         | 1                                                                                | -         | -                              | -         | -                              | -                      | 3                              | 2         | 1                              | -         | -                                                                              | 2         | 2                              | -         | -                              | -         | 1              | -         | -         | -         | -         | 25         |
| <b>Footnotes:</b><br><sup>(17)</sup> Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3 and Version 4 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. FY19 includes procurement of two CSRR Increment 1 Version 4 modernization kits.<br><sup>(18)</sup> The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.<br><sup>(19)</sup> Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is requested by the planning yard 12 months prior to install. It is also required the year that the first modernization kit, Undersea Assured Command & Control (UAC2) solution, or Link 16 terminal is procured for each CSRR version on each Class to meet ship construction deadlines.<br><sup>(20)</sup> Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit, UAC2 solution, or Link 16 terminal is procured for each CSRR version on each submarine class. Data/logistics funds are required in FY2022 to support C4I systems procured by other Component Programs of Record (PORs) that impact the CSRR baseline. These funds are required to develop allowance parts list (APLs) and interactive electronic technical manuals (IETMS).<br><sup>(21)</sup> Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.<br><sup>(22)</sup> Production lead time for UAC2 Solution 1 and 2 varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized. |            |                                |           |                                |           |                                |           |                                |           |                                                                                  |           |                                |           |                                |                        |                                |           |                                |           |                                                                                |           |                                |           |                                |           |                |           |           |           |           |            |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                                  |  | <b>Date:</b> February 2018 |  |                                                                     |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |  |                            |  | <b>Modification Number / Title:</b><br>5 / L0084 CSRR-SSN (SEAWOLF) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 51.044      | 3.266   | 3.745   | 2.334        | 0.000       | 2.334           | 2.741   | 3.082   | 2.800   | 0.402   | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 51.044      | 3.266   | 3.745   | 2.334        | 0.000       | 2.334           | 2.741   | 3.082   | 2.800   | 0.402   | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 51.044      | 3.266   | 3.745   | 2.334        | 0.000       | 2.334           | 2.741   | 3.082   | 2.800   | 0.402   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

Procurement and Installation of CSRR and upgrades on SSN (SEAWOLF) Class Submarines.

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|                                                                            |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
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| Exhibit P-3a, Individual Modification: PB 2019 Navy                        |                                |                                |                                |                                                                           |                                |                                |                                | Date: February 2018                                          |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12  |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                | Modification Number / Title:<br>5 / L0084 CSRR-SSN (SEAWOLF) |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                           |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                                              |                                |                                |                                |                                |
| Models of Systems Affected: Submarine                                      |                                |                                | Modification Type: Various     |                                                                           |                                |                                |                                | Related RDT&E PEs: 0604503N                                  |                                |                                |                                |                                |
| Financial Plan                                                             | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                      | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| Modification Item 1 of 1: L0084 CSRR-SSN (SEAWOLF)                         |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| B Kits                                                                     |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| Recurring                                                                  |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| 1.1.1) Equipment (Prior Years) - NonOrganic                                |                                | 10 / 32.150                    | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                        | - / -                          | - / -                          | - / -                          | 10 / 32.150                    |
| 1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic <sup>(23)</sup> |                                | - / -                          | - / -                          | - / -                                                                     | 1 / 0.265                      | - / -                          | 1 / 0.265                      | 1 / 0.273                                                    | 1 / 0.281                      | - / -                          | - / -                          | 3 / 0.819                      |
| 1.1.3) Equipment - UAC2 Solution 1 - NonOrganic                            |                                | - / -                          | - / -                          | 2 / 0.192                                                                 | - / -                          | - / -                          | - / -                          | 1 / 0.102                                                    | - / -                          | - / -                          | - / -                          | 3 / 0.294                      |
| 1.1.4) Equipment - UAC2 Solution 2 - NonOrganic                            |                                | - / -                          | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | 1 / 0.288                                                    | - / -                          | - / -                          | - / -                          | 1 / 0.288                      |
| 1.1.5) Equipment - Link 16 - NonOrganic                                    |                                | - / -                          | - / -                          | - / -                                                                     | 1 / 0.618                      | - / -                          | 1 / 0.618                      | - / -                                                        | 1 / 0.656                      | - / -                          | - / -                          | 2 / 1.274                      |
| Subtotal: Recurring                                                        |                                | - / 32.150                     | - / -                          | - / 0.192                                                                 | - / 0.883                      | - / -                          | - / 0.883                      | - / 0.375                                                    | - / 1.225                      | - / -                          | - / -                          | - / 34.825                     |
| Subtotal: L0084 CSRR-SSN (SEAWOLF)                                         |                                | 10 / 32.150                    | - / -                          | 2 / 0.192                                                                 | 2 / 0.883                      | - / -                          | 2 / 0.883                      | 2 / 0.375                                                    | 3 / 1.225                      | - / -                          | - / -                          | 19 / 34.825                    |
| Subtotal: Procurement, All Modification Items                              |                                | - / 32.150                     | - / -                          | - / 0.192                                                                 | - / 0.883                      | - / -                          | - / 0.883                      | - / 0.375                                                    | - / 1.225                      | - / -                          | - / -                          | - / 34.825                     |
| Support (All Modification Items)                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| 2.1) ShipALT/DSA Nonrecurring <sup>(24)</sup>                              |                                | - / 1.563                      | - / 0.425                      | - / 1.238                                                                 | - / 0.632                      | - / -                          | - / 0.632                      | - / 0.638                                                    | - / 0.365                      | - / -                          | - / -                          | Continuing                     |
| 2.2) Enterprise Change Request /Nonrecurring <sup>(25)</sup>               |                                | - / 2.117                      | - / -                          | - / 1.188                                                                 | - / 0.539                      | - / -                          | - / 0.539                      | - / 0.607                                                    | - / 0.586                      | - / 0.921                      | - / 0.402                      | Continuing                     |
| 2.3) Data/Logistics <sup>(26)</sup>                                        |                                | - / 1.825                      | - / 0.514                      | - / 0.576                                                                 | - / 0.227                      | - / -                          | - / 0.227                      | - / 0.214                                                    | - / 0.250                      | - / 0.310                      | - / -                          | Continuing                     |
| 2.4) Production Support                                                    |                                | - / 1.704                      | - / -                          | - / 0.012                                                                 | - / 0.053                      | - / -                          | - / 0.053                      | - / 0.023                                                    | - / 0.074                      | - / -                          | - / -                          | Continuing                     |
| 2.5) Other (DSA Recurring)                                                 |                                | - / 2.527                      | - / 0.265                      | - / 0.309                                                                 | - / -                          | - / -                          | - / -                          | - / 0.158                                                    | - / 0.101                      | - / 0.663                      | - / -                          | Continuing                     |
| Subtotal: Support                                                          |                                | - / 9.736                      | - / 1.204                      | - / 3.323                                                                 | - / 1.451                      | - / -                          | - / 1.451                      | - / 1.640                                                    | - / 1.376                      | - / 1.894                      | - / 0.402                      | Continuing                     |
| Installation                                                               |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| Modification Item 1 of 1: L0084 CSRR-SSN (SEAWOLF)                         |                                | - / 9.158                      | - / 2.062                      | - / 0.230                                                                 | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.726                                                    | - / 0.481                      | - / 0.906                      | - / 0.000                      | - / 13.563                     |
| Subtotal: Installation                                                     |                                | - / 9.158                      | - / 2.062                      | - / 0.230                                                                 | - / -                          | - / -                          | - / -                          | - / 0.726                                                    | - / 0.481                      | - / 0.906                      | - / -                          | - / 13.563                     |
| Total                                                                      |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |
| Total Cost (Procurement + Support + Installation)                          |                                | 51.044                         | 3.266                          | 3.745                                                                     | 2.334                          | 0.000                          | 2.334                          | 2.741                                                        | 3.082                          | 2.800                          | 0.402                          | Continuing                     |
|                                                                            |                                |                                |                                |                                                                           |                                |                                |                                |                                                              |                                |                                |                                |                                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018            |                                                                     |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                       | <b>Modification Number / Title:</b><br>5 / L0084 CSRR-SSN (SEAWOLF) |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                     |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSN (SEAWOLF)                        |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| Manufacturer Name: SAIC (Mod Kits) <sup>(27)</sup>                               |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Charleston, SC |                                                                     |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 6                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                     |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                     |                                |                                |                                |                                |
| Contract Dates                                                                   |                                |                                | Apr 2019                       |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                |                                | Apr 2020                       |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| Manufacturer Name: COMTECH (UAC2) <sup>(28)</sup>                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Tempe, AZ      |                                                                     |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 9    |                                                                     |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                     |                                |                                |                                |                                |
| Contract Dates                                                                   |                                | Jan 2018                       |                                |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                | Sep 2018                       |                                |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| Manufacturer Name: TBD (Link 16)                                                 |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: TBD            |                                                                     |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 6                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                     |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                     |                                |                                |                                |                                |
| Contract Dates                                                                   |                                |                                | Apr 2019                       |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                |                                | Apr 2020                       |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| <b>Installation Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: SEAWOLF   |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                     |                                |                                |                                |                                |
|                                                                                  | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                      | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
| <b>Installation Cost</b>                                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                      | 9 / 9.158                      | 1 / 2.062                      | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | - / -                          | - / -                          | 0 / 0.000                      | 10 / 11.220                    |
| FY 2017                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                          | - / -                          | - / -                          | 2 / 0.230                      | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.230                      |
| FY 2019                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 2 / 0.726                             | - / -                                                               | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.726                      |
| FY 2020                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | 2 / 0.481                                                           | - / -                          | - / -                          | 0 / 0.000                      | 2 / 0.481                      |
| FY 2021                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | 3 / 0.906                      | - / -                          | 0 / 0.000                      | 3 / 0.906                      |
| FY 2022                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2023                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          |
| To Complete                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                               | - / -                          | - / -                          | - / -                          | - / -                          |
| Total                                                                            | 9 / 9.158                      | 1 / 2.062                      | 2 / 0.230                      | - / -                                                                            | - / -                          | - / -                          | 2 / 0.726                             | 2 / 0.481                                                           | 3 / 0.906                      | - / -                          | 0 / 0.000                      | 19 / 13.563                    |

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|---------------------------------------------------------------------------|-----|---------|----|----|----|---------|----|----|----|---------------------------------------------------------------------------|----|----|----|---------|----|----|----|---------------------|----|--------------------------------------------------------------|----|---------|----|----|----|---------|----|----|----|----|-----|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |     |         |    |    |    |         |    |    |    |                                                                           |    |    |    |         |    |    |    | Date: February 2018 |    |                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12 |     |         |    |    |    |         |    |    |    | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |    |    |    |         |    |    |    |                     |    | Modification Number / Title:<br>5 / L0084 CSRR-SSN (SEAWOLF) |    |         |    |    |    |         |    |    |    |    |     |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |     |         |    |    |    |         |    |    |    |                                                                           |    |    |    |         |    |    |    | MDAP/MAIS Code:     |    |                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Modification Item 1 of 1: L0084 CSRR-SSN (SEAWOLF)                        |     |         |    |    |    |         |    |    |    |                                                                           |    |    |    |         |    |    |    |                     |    |                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Installation Information                                                  |     |         |    |    |    |         |    |    |    |                                                                           |    |    |    |         |    |    |    |                     |    |                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Method of Implementation: [none specified]:: Installation Name: SEAWOLF   |     |         |    |    |    |         |    |    |    |                                                                           |    |    |    |         |    |    |    |                     |    |                                                              |    |         |    |    |    |         |    |    |    |    |     |
| Installation Schedule                                                     |     |         |    |    |    |         |    |    |    |                                                                           |    |    |    |         |    |    |    |                     |    |                                                              |    |         |    |    |    |         |    |    |    |    |     |
|                                                                           | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019                                                                   |    |    |    | FY 2020 |    |    |    | FY 2021             |    |                                                              |    | FY 2022 |    |    |    | FY 2023 |    |    |    |    |     |
|                                                                           |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1                                                                        | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1                  | Q2 | Q3                                                           | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | TC | Tot |
| In                                                                        | 9   | -       | 1  | -  | -  | -       | -  | -  | 1  | 1                                                                         | -  | -  | -  | -       | -  | 1  | 1  | -                   | 1  | -                                                            | 1  | -       | -  | 2  | 1  | -       | -  | -  | -  | -  | 19  |
| Out                                                                       | 9   | -       | 1  | -  | -  | -       | -  | -  | 1  | 1                                                                         | -  | -  | -  | -       | -  | -  | 2  | -                   | 1  | -                                                            | 1  | -       | -  | 2  | -  | 1       | -  | -  | -  | -  | 19  |

**Footnotes:**

- <sup>(23)</sup> Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3 and Version 4 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. FY19 includes procurement of one CSRR Increment 1 Version 4 modernization kit.
- <sup>(24)</sup> Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is requested by the planning yard 12 months prior to install. It is also required the year that the first modernization kit, Undersea Assured Command & Control (UAC2) solution, or Link 16 terminal is procured for each CSRR version on each Class to meet ship construction deadlines.
- <sup>(25)</sup> The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.
- <sup>(26)</sup> Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit, UAC2 solution, or Link 16 terminal is procured for each CSRR version on each submarine class.
- <sup>(27)</sup> Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.
- <sup>(28)</sup> Production lead time for UAC2 Solution 1 and 2 varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|----------------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|-----------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                     |                                                                                  |                      |                        |                |                | <b>Date:</b> February 2018                                                        |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                              |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                     |                                                                                  |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                   |                    |                   |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                               | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                    | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 53.409             | 9.510          | 15.400         | 12.405              | 0.000                                                                            | 12.405               | 10.567                 | 7.155          | 6.950          | 5.771                                                                             | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 53.409             | 9.510          | 15.400         | 12.405              | 0.000                                                                            | 12.405               | 10.567                 | 7.155          | 6.950          | 5.771                                                                             | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>53.409</b>      | <b>9.510</b>   | <b>15.400</b>  | <b>12.405</b>       | <b>0.000</b>                                                                     | <b>12.405</b>        | <b>10.567</b>          | <b>7.155</b>   | <b>6.950</b>   | <b>5.771</b>                                                                      | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                     |                                                                                  |                      |                        |                |                |                                                                                   |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                 | -                  | -                 |
| <b>Description:</b><br>Procurement and Installation of CSRR upgrades on VIRGINIA Class submarines                                             |                    |                |                |                     |                                                                                  |                      |                        |                |                |                                                                                   |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                        |                                |                                |                                |                                                                           |                                |                                |                                | Date: February 2018                                                        |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12  |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                | Modification Number / Title:<br>6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                           |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                                                            |                                |                                |                                |                                |  |
| Models of Systems Affected: Submarine                                      |                                |                                |                                | Modification Type: Various                                                |                                |                                |                                | Related RDT&E PEs: 0604503N                                                |                                |                                |                                |                                |  |
| Financial Plan                                                             | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                    | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades           |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| B Kits                                                                     |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Recurring                                                                  |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| 1.1.1) Equipment - Mod Kits (Prior Years) - NonOrganic                     |                                | 4 / 4.872                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                          | 4 / 4.872                      |  |
| 1.1.2) Equipment - Baseline upgrade Increment 1 Ver 3 - NonOrganic         |                                | 7 / 16.597                     | 2 / 5.346                      | 1 / 2.753                                                                 | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                          | 10 / 24.696                    |  |
| 1.1.3) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic <sup>(29)</sup> |                                | - / -                          | - / -                          | 1 / 0.265                                                                 | 5 / 1.366                      | - / -                          | 5 / 1.366                      | 2 / 0.563                                                                  | - / -                          | - / -                          | 1 / 0.307                      | Continuing                     |  |
| 1.1.4) Equipment - RFDACS Mod Kits (Inc 1 Ver 4) - Organic <sup>(30)</sup> |                                | - / -                          | - / -                          | 1 / 0.550                                                                 | 4 / 2.266                      | - / -                          | 4 / 2.266                      | - / -                                                                      | - / -                          | - / -                          | 1 / 0.638                      | Continuing                     |  |
| 1.1.5) Equipment - UAC2 Solution 1 - NonOrganic                            |                                | - / -                          | - / -                          | 12 / 1.152                                                                | 7 / 0.693                      | - / -                          | 7 / 0.693                      | 5 / 0.510                                                                  | 2 / 0.210                      | 2 / 0.216                      | - / -                          | - / -                          |  |
| 1.1.6) Equipment - UAC2 Solution 2 - NonOrganic                            |                                | - / -                          | - / -                          | - / -                                                                     | 1 / 0.272                      | - / -                          | 1 / 0.272                      | - / -                                                                      | 2 / 0.576                      | 1 / 0.297                      | - / -                          | - / -                          |  |
| 1.1.7) Equipment - Link 16 - NonOrganic <sup>(31)</sup>                    |                                | - / -                          | - / -                          | - / -                                                                     | 3 / 1.854                      | - / -                          | 3 / 1.854                      | 4 / 2.546                                                                  | 3 / 1.967                      | 4 / 2.701                      | 2 / 1.391                      | - / -                          |  |
| Subtotal: Recurring                                                        |                                | - / 21.469                     | - / 5.346                      | - / 4.720                                                                 | - / 6.451                      | - / -                          | - / 6.451                      | - / 3.619                                                                  | - / 2.753                      | - / 3.214                      | - / 2.336                      | Continuing                     |  |
| Subtotal: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades                           |                                | 11 / 21.469                    | 2 / 5.346                      | 15 / 4.720                                                                | 20 / 6.451                     | - / -                          | 20 / 6.451                     | 11 / 3.619                                                                 | 7 / 2.753                      | 7 / 3.214                      | 4 / 2.336                      | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                              |                                | - / 21.469                     | - / 5.346                      | - / 4.720                                                                 | - / 6.451                      | - / -                          | - / 6.451                      | - / 3.619                                                                  | - / 2.753                      | - / 3.214                      | - / 2.336                      | Continuing                     |  |
| Support (All Modification Items)                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| 2.1) Support Cost (Prior Years)                                            |                                | - / 0.625                      | - / -                          | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                                                                      | - / -                          | - / -                          | - / -                          | - / 0.625                      |  |
| 2.2) Data/Logistics <sup>(32)</sup>                                        |                                | - / 2.434                      | - / 0.440                      | - / 1.032                                                                 | - / 0.167                      | - / -                          | - / 0.167                      | - / 0.743                                                                  | - / 0.150                      | - / 0.220                      | - / 0.050                      | Continuing                     |  |
| 2.3) ShipALT/DSA Nonrecurring <sup>(33)</sup>                              |                                | - / 3.980                      | - / 0.347                      | - / 1.992                                                                 | - / 0.448                      | - / -                          | - / 0.448                      | - / 0.558                                                                  | - / 0.250                      | - / 0.240                      | - / -                          | Continuing                     |  |
| 2.4) Enterprise Change Request <sup>(34)</sup>                             |                                | - / 3.026                      | - / 0.542                      | - / 2.111                                                                 | - / 0.282                      | - / -                          | - / 0.282                      | - / 0.840                                                                  | - / 0.620                      | - / 0.724                      | - / 0.753                      | Continuing                     |  |
| 2.5) Production Support                                                    |                                | - / 2.476                      | - / 0.336                      | - / 0.283                                                                 | - / 0.387                      | - / -                          | - / 0.387                      | - / 0.217                                                                  | - / 0.165                      | - / 0.193                      | - / 0.140                      | Continuing                     |  |
| 2.6) Other (DSA Recurring)                                                 |                                | - / 1.901                      | - / 0.248                      | - / 0.395                                                                 | - / 0.778                      | - / -                          | - / 0.778                      | - / 0.669                                                                  | - / 0.451                      | - / 0.611                      | - / 0.415                      | Continuing                     |  |
| Subtotal: Support                                                          |                                | - / 14.442                     | - / 1.913                      | - / 5.813                                                                 | - / 2.062                      | - / -                          | - / 2.062                      | - / 3.027                                                                  | - / 1.636                      | - / 1.988                      | - / 1.358                      | Continuing                     |  |
| Installation                                                               |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades           |                                | - / 17.498                     | - / 2.251                      | - / 4.867                                                                 | - / 3.892                      | - / 0.000                      | - / 3.892                      | - / 3.921                                                                  | - / 2.766                      | - / 1.748                      | - / 2.077                      | Continuing                     |  |
| Subtotal: Installation                                                     |                                | - / 17.498                     | - / 2.251                      | - / 4.867                                                                 | - / 3.892                      | - / -                          | - / 3.892                      | - / 3.921                                                                  | - / 2.766                      | - / 1.748                      | - / 2.077                      | Continuing                     |  |
| Total                                                                      |                                |                                |                                |                                                                           |                                |                                |                                |                                                                            |                                |                                |                                |                                |  |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                | Date: February 2018                                                        |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12 |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                |                                |                                | Modification Number / Title:<br>6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                |                                |                                                                            |                                |                                |  |
| Models of Systems Affected: Submarine                                     |                                |                                |                                | Modification Type: Various                                                |                                |                                |                                |                                | Related RDT&E PEs: 0604503N    |                                                                            |                                |                                |  |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                                                                    | To Complete                    | Total                          |  |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Total Cost (Procurement + Support + Installation)                         | 53.409                         | 9.510                          | 15.400                         | 12.405                                                                    | 0.000                          | 12.405                         | 10.567                         | 7.155                          | 6.950                          | 5.771                                                                      | Continuing                     | Continuing                     |  |
|                                                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                |                                                                            |                                |                                |  |

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|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018            |                                                                                   |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                       | <b>Modification Number / Title:</b><br>6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                                   |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSN (VIRGINIA) Mod Upgrades          |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| Manufacturer Name: SAIC (Mod Kits) <sup>(35)</sup>                               |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Charleston, SC |                                                                                   |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                   |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                   |                                |                                |                                |                                |
| Contract Dates                                                                   | Jan 2017                       | Jan 2018                       | Dec 2018                       |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| Delivery Dates                                                                   | Jan 2018                       | Jan 2019                       | Dec 2019                       |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| Manufacturer Name: COMTECH (UAC2) <sup>(36)</sup>                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Tempe, AZ      |                                                                                   |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                   |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                   |                                |                                |                                |                                |
| Contract Dates                                                                   |                                | Jan 2018                       | Nov 2018                       |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                | Sep 2018                       | Dec 2019                       |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| Manufacturer Name: TBD (Link 16)                                                 |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: TBD            |                                                                                   |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 6                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                   |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                   |                                |                                |                                |                                |
| Contract Dates                                                                   |                                |                                | Apr 2019                       |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                |                                | Apr 2020                       |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| <b>Installation Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| <b>Method of Implementation:</b> Method:: Installation Name: Virginia Class      |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                   |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                    | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                      | 10 / 17.498                    | 1 / 2.251                      | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 11 / 19.749                    |
| FY 2017                                                                          | - / -                          | - / -                          | 2 / 4.637                      | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 2 / 4.637                      |
| FY 2018                                                                          | - / -                          | - / -                          | 2 / 0.230                      | 12 / 3.892                                                                       | 0 / 0.000                      | 12 / 3.892                     | - / -                                 | - / -                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 14 / 4.122                     |
| FY 2019                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 16 / 3.799                            | - / -                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 16 / 3.799                     |
| FY 2020                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 1 / 0.122                             | 10 / 2.766                                                                        | - / -                          | - / -                          | 0 / 0.000                      | 11 / 2.888                     |
| FY 2021                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                             | 7 / 1.748                      | - / -                          | 0 / 0.000                      | 7 / 1.748                      |
| FY 2022                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                             | - / -                          | 7 / 2.077                      | 0 / 0.000                      | 7 / 2.077                      |
| FY 2023                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                             | - / -                          | - / -                          | Continuing                     | Continuing                     |
| To Complete                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                             | - / -                          | - / -                          | Continuing                     | Continuing                     |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                       |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                       |                                       |                                       |                                       |                                       |           |           |                |           | <b>Modification Number / Title:</b><br>6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSN (VIRGINIA) Mod Upgrades                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>Method of Implementation:</b> Method:: Installation Name: Virginia Class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                   | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | 10 / 17.498                           | 1 / 2.251                             | 4 / 4.867                             | 12 / 3.892                            | 0 / 0.000                             | 12 / 3.892                            | 17 / 3.921                            | 10 / 2.766                            | 7 / 1.748                                                                        | 7 / 2.077                             | Continuing                            | Continuing                            |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                                   |                                       |                                       |                                       | <b>FY 2020</b>                        |                                       |           |           | <b>FY 2021</b> |           |                                                                                   |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b>                       | <b>Tot</b> |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                        | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                                         | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |                                 |            |  |  |  |  |  |  |  |  |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8          | 1                                     | 1                                     | -                                     | 1                                     | -                                     | -                                     | 1                                     | 2                                     | 1                                                                                | 5                                     | 2                                     | 5                                     | -                                     | 6                                     | 1         | 10        | 1              | 3         | 1                                                                                 | 5         | -              | -         | 1         | 5         | 1              | 2         | -         | 5         | Cont.                           | Cont.      |  |  |  |  |  |  |  |  |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8          | 1                                     | -                                     | 1                                     | 1                                     | -                                     | -                                     | -                                     | 2                                     | 2                                                                                | 4                                     | 3                                     | 4                                     | 1                                     | 5                                     | 1         | 6         | 6              | 3         | 1                                                                                 | 1         | 4              | -         | 1         | 2         | 4              | 2         | -         | 1         | Cont.                           | Cont.      |  |  |  |  |  |  |  |  |
| <b>Method of Implementation (Organic):</b> Equipment - RFDACS Mod Kits (Inc 1 Ver 4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           | <b>Installation Quantity:</b> 0 |            |  |  |  |  |  |  |  |  |
| <b>Footnotes:</b><br><sup>(29)</sup> Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3 and Version 4 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. FY19 includes procurement of five CSRR Increment 1 Version 4 modernization kits.<br><sup>(30)</sup> FY19 includes procurement of four Radio Frequency Distribution and Control Systems (RFDACS) to address Reliability, Maintainability, Availability (RMA) and Environmental Qualification Testing (EQT) deficiencies. RFDACS is procured as a separate CSRR Component but fielded as part of the CSRR Inc1v4 modernization kit installations.<br><sup>(31)</sup> Funding added in FY19 for three Link 16 terminals to improve system performance and reliability.<br><sup>(32)</sup> Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit, Undersea Assured Command & Control (UAC2) solution, or Link 16 terminal is procured for each CSRR version on each submarine class.<br><sup>(33)</sup> Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is requested by the planning yard 12 months prior to install. It is also required the year that the first modernization kit, UAC2 solution, or Link 16 terminal is procured for each CSRR version on each Class to meet ship construction deadlines.<br><sup>(34)</sup> The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.<br><sup>(35)</sup> Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.<br><sup>(36)</sup> Production lead time for UAC2 Solution 1 and 2 varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized. |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                  |                                       |                                       |                                       |                                       |                                       |           |           |                |           |                                                                                   |           |                |           |           |           |                |           |           |           |                                 |            |  |  |  |  |  |  |  |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                    |                    |                |                |                     |                                                                                  |                      |                        |                |                | <b>Date:</b> February 2018                                                              |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12                                                              |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                      |                        |                |                | <b>Modification Number / Title:</b><br>7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                       |                    |                |                |                     |                                                                                  |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                         |                    |                   |
| <b>Resource Summary</b>                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                               | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                          | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                       | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 169.059            | 14.652         | 14.860         | 13.935              | 0.000                                                                            | 13.935               | 11.859                 | 5.216          | 5.793          | 9.027                                                                                   | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                       | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 169.059            | 14.652         | 14.860         | 13.935              | 0.000                                                                            | 13.935               | 11.859                 | 5.216          | 5.793          | 9.027                                                                                   | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                       | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                   | <b>169.059</b>     | <b>14.652</b>  | <b>14.860</b>  | <b>13.935</b>       | <b>0.000</b>                                                                     | <b>13.935</b>        | <b>11.859</b>          | <b>5.216</b>   | <b>5.793</b>   | <b>9.027</b>                                                                            | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |                    |                |                |                     |                                                                                  |                      |                        |                |                |                                                                                         |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                       | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -                  | -              | -              | -                   | -                                                                                | -                    | -                      | -              | -              | -                                                                                       | -                  | -                 |
| <b>Description:</b><br>Procurement and Installation of CSRR and upgrades on LOS ANGELES Class Submarines                                      |                    |                |                |                     |                                                                                  |                      |                        |                |                |                                                                                         |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                        |                                |                                |                                |                                                                           |                                |                                |                                |                                | Date: February 2018                                                              |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 12  |                                |                                |                                | P-1 Line Item Number / Title:<br>3130 / Submarine Communication Equipment |                                |                                |                                |                                | Modification Number / Title:<br>7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                           |                                |                                |                                |                                                                           |                                |                                | MDAP/MAIS Code:                |                                |                                                                                  |                                |                                |                                |  |
| Models of Systems Affected: Submarine                                      |                                |                                |                                | Modification Type: Various                                                |                                |                                |                                | Related RDT&E PEs: 0604503N    |                                                                                  |                                |                                |                                |  |
| Financial Plan                                                             | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                              | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                                          | FY 2023                        | To Complete                    | Total                          |  |
|                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades     |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| B Kits                                                                     |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| Recurring                                                                  |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| 1.1.1) Equipment - Mod Kits Increment 1 Ver 3 - NonOrganic                 | 29 / 103.411                   | 1 / 4.374                      | 1 / 4.505                      | - / -                                                                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 31 / 112.290                   |  |
| 1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic <sup>(37)</sup> | - / -                          | - / -                          | 2 / 0.530                      | 8 / 2.185                                                                 | - / -                          | 8 / 2.185                      | 5 / 1.407                      | - / -                          | - / -                                                                            | - / -                          | Continuing                     | Continuing                     |  |
| 1.1.3) Equipment - UAC2 Solution 1 - NonOrganic                            | - / -                          | - / -                          | 18 / 1.728                     | 11 / 1.089                                                                | - / -                          | 11 / 1.089                     | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | 29 / 2.817                     |  |
| 1.1.4) Equipment - UAC2 Solution 2 - NonOrganic                            | - / -                          | - / -                          | - / -                          | 1 / 0.272                                                                 | - / -                          | 1 / 0.272                      | 1 / 0.280                      | 3 / 0.864                      | - / -                                                                            | 5 / 1.530                      | - / -                          | 10 / 2.946                     |  |
| 1.1.5) Equipment - Link 16 - NonOrganic <sup>(38)</sup>                    | - / -                          | - / -                          | - / -                          | 5 / 3.090                                                                 | - / -                          | 5 / 3.090                      | 1 / 0.637                      | 1 / 0.656                      | 5 / 3.377                                                                        | 5 / 3.478                      | - / -                          | 17 / 11.238                    |  |
| Subtotal: Recurring                                                        | - / 103.411                    | - / 4.374                      | - / 6.763                      | - / 6.636                                                                 | - / -                          | - / 6.636                      | - / 2.324                      | - / 1.520                      | - / 3.377                                                                        | - / 5.008                      | Continuing                     | Continuing                     |  |
| Subtotal: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades                     | 29 / 103.411                   | 1 / 4.374                      | 21 / 6.763                     | 25 / 6.636                                                                | - / -                          | 25 / 6.636                     | 7 / 2.324                      | 4 / 1.520                      | 5 / 3.377                                                                        | 10 / 5.008                     | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                              | - / 103.411                    | - / 4.374                      | - / 6.763                      | - / 6.636                                                                 | - / -                          | - / 6.636                      | - / 2.324                      | - / 1.520                      | - / 3.377                                                                        | - / 5.008                      | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                           |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| 2.1) Enterprise Change Request/Nonrecurring <sup>(39)</sup>                | - / 5.449                      | - / 1.238                      | - / 2.405                      | - / 0.536                                                                 | - / -                          | - / 0.536                      | - / 1.629                      | - / 0.648                      | - / 0.674                                                                        | - / 0.628                      | Continuing                     | Continuing                     |  |
| 2.2) ShipALT/DSA Nonrecurring <sup>(40)</sup>                              | - / 1.698                      | - / 0.372                      | - / 2.012                      | - / 0.607                                                                 | - / -                          | - / 0.607                      | - / 0.705                      | - / -                          | - / -                                                                            | - / 0.414                      | Continuing                     | Continuing                     |  |
| 2.3) Data/Logistics <sup>(41)</sup>                                        | - / 2.448                      | - / 0.552                      | - / 0.789                      | - / 0.278                                                                 | - / -                          | - / 0.278                      | - / 0.313                      | - / 0.319                      | - / 0.301                                                                        | - / 0.307                      | Continuing                     | Continuing                     |  |
| 2.4) Production Support                                                    | - / 6.722                      | - / 0.257                      | - / 0.405                      | - / 0.398                                                                 | - / -                          | - / 0.398                      | - / 0.139                      | - / 0.091                      | - / 0.203                                                                        | - / 0.300                      | Continuing                     | Continuing                     |  |
| 2.5) Other (DSA Recurring) <sup>(42)</sup>                                 | - / 8.812                      | - / 0.913                      | - / 0.352                      | - / 0.983                                                                 | - / -                          | - / 0.983                      | - / 0.942                      | - / 0.394                      | - / 0.425                                                                        | - / 0.283                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                          | - / 25.129                     | - / 3.332                      | - / 5.963                      | - / 2.802                                                                 | - / -                          | - / 2.802                      | - / 3.728                      | - / 1.452                      | - / 1.603                                                                        | - / 1.932                      | Continuing                     | Continuing                     |  |
| Installation                                                               |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades     | - / 40.519                     | - / 6.946                      | - / 2.134                      | - / 4.497                                                                 | - / 0.000                      | - / 4.497                      | - / 5.807                      | - / 2.244                      | - / 0.813                                                                        | - / 2.087                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                     | - / 40.519                     | - / 6.946                      | - / 2.134                      | - / 4.497                                                                 | - / -                          | - / 4.497                      | - / 5.807                      | - / 2.244                      | - / 0.813                                                                        | - / 2.087                      | Continuing                     | Continuing                     |  |
| Total                                                                      |                                |                                |                                |                                                                           |                                |                                |                                |                                |                                                                                  |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                          | 169.059                        | 14.652                         | 14.860                         | 13.935                                                                    | 0.000                          | 13.935                         | 11.859                         | 5.216                          | 5.793                                                                            | 9.027                          | Continuing                     | Continuing                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                  |                                |                                | <b>Date:</b> February 2018            |                                                                                         |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment |                                |                                |                                       | <b>Modification Number / Title:</b><br>7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                  |                                |                                | <b>MDAP/MAIS Code:</b>                |                                                                                         |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades    |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| Manufacturer Name: SAIC (Mod Kits) <sup>(43)</sup>                               |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Charleston, SC |                                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                   | Jan 2017                       | Jan 2018                       | Jan 2019                       |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                   | Jan 2018                       | Jan 2019                       | Jan 2020                       |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| Manufacturer Name: COMTECH (UAC2) <sup>(44)</sup>                                |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: Tempe, AZ      |                                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 9    |                                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                   |                                | Jan 2018                       | Nov 2018                       |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                | Sep 2018                       | Sep 2019                       |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| Manufacturer Name: TBD (Link 16)                                                 |                                |                                |                                |                                                                                  |                                |                                | Manufacturer Location: TBD            |                                                                                         |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 6                                           |                                |                                |                                |                                                                                  |                                |                                | Production Leadtime (in Months): 12   |                                                                                         |                                |                                |                                |                                |
| <b>Dates</b>                                                                     | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                   | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                        |                                                                                         |                                |                                |                                |                                |
| Contract Dates                                                                   |                                |                                | Apr 2019                       |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| Delivery Dates                                                                   |                                |                                | Apr 2020                       |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| <b>Installation Information</b>                                                  |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| <b>Method of Implementation:</b> Method:: Installation Name: LA Class            |                                |                                |                                |                                                                                  |                                |                                |                                       |                                                                                         |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                         | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                              | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                          | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M)                                                          | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                      | 25 / 40.519                    | 4 / 6.946                      | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 29 / 47.465                    |
| FY 2017                                                                          | - / -                          | - / -                          | 1 / 1.789                      | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 1 / 1.789                      |
| FY 2018                                                                          | - / -                          | - / -                          | 3 / 0.345                      | 18 / 4.261                                                                       | 0 / 0.000                      | 18 / 4.261                     | - / -                                 | - / -                                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 21 / 4.606                     |
| FY 2019                                                                          | - / -                          | - / -                          | - / -                          | 2 / 0.236                                                                        | 0 / 0.000                      | 2 / 0.236                      | 23 / 5.807                            | - / -                                                                                   | - / -                          | - / -                          | 0 / 0.000                      | 25 / 6.043                     |
| FY 2020                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | 7 / 2.244                                                                               | - / -                          | - / -                          | 0 / 0.000                      | 7 / 2.244                      |
| FY 2021                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                                   | 4 / 0.813                      | - / -                          | 0 / 0.000                      | 4 / 0.813                      |
| FY 2022                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                                   | - / -                          | 5 / 2.087                      | 0 / 0.000                      | 5 / 2.087                      |
| FY 2023                                                                          | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                                   | - / -                          | - / -                          | Continuing                     | Continuing                     |
| To Complete                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                            | - / -                          | - / -                          | - / -                                 | - / -                                                                                   | - / -                          | - / -                          | Continuing                     | Continuing                     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                                  | <b>Date:</b> February 2018                                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 12 | <b>P-1 Line Item Number / Title:</b><br>3130 / Submarine Communication Equipment | <b>Modification Number / Title:</b><br>7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades |

|                                                         |                        |
|---------------------------------------------------------|------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : | <b>MDAP/MAIS Code:</b> |
|---------------------------------------------------------|------------------------|

**Modification Item 1 of 1:** L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

**Installation Information**

**Method of Implementation:** Method:: Installation Name: LA Class

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Total             | 25 / 40.519                    | 4 / 6.946                      | 4 / 2.134                      | 20 / 4.497                     | 0 / 0.000                      | 20 / 4.497                     | 23 / 5.807                     | 7 / 2.244                      | 4 / 0.813                      | 5 / 2.087                      | Continuing                     | Continuing                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|-------|-------|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In  | 25  | -       | -  | -  | 1  | 3       | -  | -  | 2  | 2       | 8  | 5  | 5  | 2       | 6  | 11 | 6  | -       | 1  | 3  | 3  | -       | 2  | -  | 2  | -       | -  | -  | 5  | Cont. | Cont. |
| Out | 22  | 2       | 1  | -  | -  | 1       | 3  | -  | 1  | 3       | 7  | 6  | 5  | 2       | 4  | 12 | 4  | 3       | 1  | 3  | 2  | 1       | 2  | -  | 1  | 1       | -  | -  | -  | Cont. | Cont. |

**Footnotes:**

- (37) Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR modernization activities bring new capabilities, address new requirements, resolve End-of-Life (EOL) and obsolescence issues or correct known system deficiencies. The unit cost variance between the CSRR Increment 1 Version 3 and Version 4 is due to different capabilities/configurations. For example, CSRR Increment 1 Version 3 is a more complex upgrade to the CSRR suite. CSRR Increment 1 Version 4 is planned to address equipment obsolescence and EOL issues. FY19 includes procurement of eight CSRR Increment 1 Version 4 modernization kits.
- (38) Funding added in FY19 for five Link 16 terminals to improve system performance and reliability
- (39) The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new CSRR baselines or for changes to C4I systems produced by other Component Programs of Record (PORs) that impact the CSRR baseline. These changes to other Component PORs frequently occur outside of a planned CSRR modernization and therefore, funding for these changes is required every fiscal year in order to speed the delivery of critical capabilities to the submarine force.
- (40) Funding supports development and planning of ShipALT design package, work element descriptions and design/GFI changes. The ShipALT design package is required the year prior to procurement because it is requested by the planning yard 12 months prior to install. It is also required the year that the first modernization kit, Undersea Assured Command & Control (UAC2) solution, or Link 16 terminal is procured for each CSRR version on each Class to meet ship construction deadlines.
- (41) Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit, UAC2 solution, or Link 16 terminal is procured for each CSRR version on each submarine class.
- (42) DSA Recurring Cost includes funding for CSRR planning yard activities.
- (43) Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.
- (44) Production lead time for UAC2 Solution 1 and 2 varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|-----------------------------------------------|---------------------|--------------------|----------------------|---------------------------------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                 |                    |                |                                               |                     |                    |                      |                                                                                 |                                            |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 13: Satellite Communications |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                            |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                          |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      |                                                                                 | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> 237                                                                                                                                              |                    |                |                                               |                     |                    |                      |                                                                                 |                                            |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                  | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                     | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                | 1,246.488          | 14.414         | 14.654                                        | 41.205              | 3.200              | 44.405               | 44.087                                                                          | 57.052                                     | 53.687         | 41.141                     | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                             | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                   | 1,246.488          | 14.414         | 14.654                                        | 41.205              | 3.200              | 44.405               | 44.087                                                                          | 57.052                                     | 53.687         | 41.141                     | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                             | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                       | <b>1,246.488</b>   | <b>14.414</b>  | <b>14.654</b>                                 | <b>41.205</b>       | <b>3.200</b>       | <b>44.405</b>        | <b>44.087</b>                                                                   | <b>57.052</b>                              | <b>53.687</b>  | <b>41.141</b>              | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                     |                    |                |                                               |                     |                    |                      |                                                                                 |                                            |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                          | -                  | 0.056          | 0.021                                         | 0.127               | -                  | 0.127                | 0.175                                                                           | 0.147                                      | 0.094          | -                          | -                  | 0.620             |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                      | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                          | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -                 |

**Description:**  
The FY 2019 funding request was reduced by \$2.000 million to account for the availability of prior year execution balances.

The Satellite Communications (SATCOM) Systems P-1 line provides funds for procurement of shipboard terminal equipment for ship-to-ship, ship-to-shore and ship-to-aircraft tactical communications via earth orbiting relay satellites. This includes Radio Frequency (RF) equipment and baseband equipment assembled and grouped into systems and subsystems structured to address specific naval communications requirements. These systems provide modem processors and peripheral equipment that control the RF links for message traffic, direct data transfer and secure voice communications. They are selected and oriented by communications traffic levels, types of communications and operational missions. CBSP technical refresh of system modems and Ka Kits will directly support Assured Command and Control (AC2) posture, SATCOM reliability, space resiliency via band diversity and redundancy. AC2 modems enable the use of Wideband Global Satellite (WGS) X-Band (ship/submarine transmit and receive) and Ka-band (shore receive and transmit) resources to maintain link connectivity to provide assured access to mission critical communications in Anti-Access Anti-Denial (A2AD) jamming environments.

[P3A / (NR117) Global Broadcast Service (GBS)]: GLOBAL BROADCAST SERVICE (GBS - NR117): GBS is a Joint Military Satellite Communications (MILSATCOM) program with the Air Force as Executive Agent for all services. GBS provides a continuous, high speed, one way information flow of high volume data to units ashore, afloat or special operations. GBS supports routine operations, training and military exercises, special activities, crises, situational awareness, weapons targeting, reconnaissance and the transition to and conduct of opposed operations short of nuclear war. Deployment of GBS internet protocol (IP) terminals will allow expanded use of military intelligence collection in a broader spectrum using MILSATCOM architecture. The Navy GBS Split IP effort enables near-real-time duplex asymmetric communications connectivity to ships/subs. GBS plays a pivotal role to support the Assured Command and Control (AC2) environment.

[P3A - 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat]: The Navy's next generation Commercial Satellite Communications (SATCOM) program provides the only source of wideband SATCOM to Patrol Coastal (PCs) and Mine Countermeasure Ships (MCMs), diversity for MILSATCOM on Unit Level Variant (ULV) ships, and augments MILSATCOM on Force Level Variant (FLV) ships. CBSP will support the procurement and installation of a commercial terminal and service architecture that significantly increase data throughput, Navy Anti-Access Area Denial posture, and SATCOM reliability and space resiliency by providing band diversity, assured access, and redundancy for MILSATCOM. Included in the program are Small Ship Variant (SSV - Patrol Coastal or Mine Countermeasure Ships), Unit Level Variant (ULV - examples are Guided Missile Destroyers or Guided Missile Frigates), and Force Level Variant (FLV - large combatant ships such as carriers).

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------|--------------------------------------------------------------------------|-------------------------------------|--|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                 |  |                                        | Date: February 2018                                                      |                                     |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 13: Satellite Communications |  |                                        | P-1 Line Item Number / Title:<br>3215 / Satellite Communications Systems |                                     |  |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                          |  | Program Elements for Code B Items: N/A |                                                                          | Other Related Program Elements: N/A |  |
| Line Item MDAP/MAIS Code: 237                                                                                                                                              |  |                                        |                                                                          |                                     |  |

| Exhibits Schedule |                                                                              |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|------------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                       | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Satellite Communications Systems                                         |             |       |                | - / 887.457                           | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             |
| P-3a              | 1 / (NR117) Global Broadcast Service (GBS) (TBD)                             |             |       |                | - / 206.522                           | - / 6.622                             | - / 5.024                             | - / 15.302                            | - / 3.200                             | - / 18.502                            |
| P-3a              | 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat (upgrade) |             |       |                | - / 135.532                           | - / 7.792                             | - / 2.260                             | - / 13.703                            | - / 0.000                             | - / 13.703                            |
| P-3a              | 3 / (NR118) JMINI CS Shore (TBD)                                             |             |       |                | - / 16.977                            | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             |
| P-3a              | 4 / Commercial Broadband Satellite Assured C2 Modems (TBD)                   |             |       |                | - / 0.000                             | - / 0.000                             | - / 7.370                             | - / 6.200                             | - / 0.000                             | - / 6.200                             |
| P-3a              | 5 / CBSP Ka Kits (TBD)                                                       |             |       |                | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 6.000                             | - / 0.000                             | - / 6.000                             |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                        |             |       |                | - / 1,246.488                         | - / 14.414                            | - / 14.654                            | - / 41.205                            | - / 3.200                             | - / 44.405                            |

  

| Exhibits Schedule |                                                                              |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
|-------------------|------------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                       | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Satellite Communications Systems                                         |             |       |                | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| P-3a              | 1 / (NR117) Global Broadcast Service (GBS) (TBD)                             |             |       |                | - / 24.117                            | - / 19.981                            | - / 16.557                            | - / 8.661                             | - / 0.000                             | - / 305.986                           |
| P-3a              | 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat (upgrade) |             |       |                | - / 14.773                            | - / 15.186                            | - / 15.344                            | - / 15.609                            | Continuing                            | Continuing                            |
| P-3a              | 3 / (NR118) JMINI CS Shore (TBD)                                             |             |       |                | - / 1.557                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 18.534                            |
| P-3a              | 4 / Commercial Broadband Satellite Assured C2 Modems (TBD)                   |             |       |                | - / 1.540                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 15.110                            |
| P-3a              | 5 / CBSP Ka Kits (TBD)                                                       |             |       |                | - / 2.100                             | - / 5.300                             | - / 5.200                             | - / 0.000                             | - / 0.000                             | - / 18.600                            |
| P-40              | <b>Total Gross/Weapon System Cost</b>                                        |             |       |                | - / 44.087                            | - / 57.052                            | - / 53.687                            | - / 41.141                            | Continuing                            | Continuing                            |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

The FY 2019 funding request increases to meet Assured Command and Controls (AC2) requirements for Global Broadcast System (GBS) afloat terminal, GBS portable receive terminal, and Commercial Broadband Satellite Program (CBSP) Unit level variants (ULV). And specifically, the FY 2019 funding request increase provides for the continued procurement of both Afloat and Portable Global Broadcast System (GBS) Program Receive Terminals and establishes an Engineering Change Order (ECO) to meet the Navy's Microsoft Windows 10 requirement Cyber Security Mandate (dated 08 December 2016). The ECO procures Public Key Infrastructure (PKI) hardware, engineering services and installations to support critical information assurance to the Fleet. The FY 2019 funding request increase also provides for Commercial Broadband Satellite Program (CBSP) procurement and installation of Unit Level Variant (ULV) terminals. And continues the procurement and installation of CBSP modem technical refresh and begins procurement and installation of Ka Kit upgrades which are both in support of Assured Command and Control (AC2). FY 2019 Non-Recurring Engineering (NRE) for Ka Kits will fund the CBSP Original Equipment Manufacturer (OEM) to design and develop a Force Level Variant (FLV) upgrade kit to replace the existing C/Ku-band feed assembly with a C/Ka-band feed assembly.

The FY 2019 funding request was reduced by \$2.100 million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                         |                                               | <b>Date:</b> February 2018                                                      |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 13: Satellite Communications                                                                                                                                                         |                                               | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                  | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                      |
| <b>Line Item MDAP/MAIS Code:</b> 237<br>FY 2019 \$3.2M Other Contingency Operations (OCO) funding procures 13 Portable GBS Systems for expanding Navy SEAL combat operations in US Central Command (CENTCOM) and other Areas of Responsibility (AORs). Increased operational use has reduced service life of legacy Portable GBS systems. |                                               |                                                                                 |

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|----------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|--|--|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               | Date: February 2018                                                  |                     |               |                      |                     |               |                      |  |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 13                                                              |  |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3215 / Satellite Communications Systems |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Satellite Communications Systems |                     |               |                      |                     |               |                      |  |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |  |                     |               |                      |                     |               |                                                                          |                     |               | MDAP/MAIS Code:      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| Resource Summary                                                                                                                       |  |                     |               | Prior Years          |                     |               | FY 2017                                                                  |                     |               | FY 2018              |                     |               | FY 2019 Base                                                         |                     |               | FY 2019 OCO          |                     |               | FY 2019 Total        |  |  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |  |                     |               | -                    |                     |               | -                                                                        |                     |               | -                    |                     |               | -                                                                    |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |  |                     |               | 887.457              |                     |               | 0.000                                                                    |                     |               | 0.000                |                     |               | 0.000                                                                |                     |               | 0.000                |                     |               | 0.000                |  |  |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                                        |                     |               | -                    |                     |               | -                                                                    |                     |               | -                    |                     |               | -                    |  |  |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |  |                     |               | 887.457              |                     |               | 0.000                                                                    |                     |               | 0.000                |                     |               | 0.000                                                                |                     |               | 0.000                |                     |               | 0.000                |  |  |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |  |                     |               | -                    |                     |               | -                                                                        |                     |               | -                    |                     |               | -                                                                    |                     |               | -                    |                     |               | -                    |  |  |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |  |                     |               | 887.457              |                     |               | 0.000                                                                    |                     |               | 0.000                |                     |               | 0.000                                                                |                     |               | 0.000                |                     |               | 0.000                |  |  |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |  |                     |               | -                    |                     |               | -                                                                        |                     |               | -                    |                     |               | -                                                                    |                     |               | -                    |                     |               | -                    |  |  |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |  |                     |               | -                    |                     |               | -                                                                        |                     |               | -                    |                     |               | -                                                                    |                     |               | -                    |                     |               | -                    |  |  |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| Cost Elements                                                                                                                          |  | Prior Years         |               |                      | FY 2017             |               |                                                                          | FY 2018             |               |                      | FY 2019 Base        |               |                                                                      | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |  |  |
|                                                                                                                                        |  | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                 | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |  |  |
| Flyaway - Consolidated Prior Year Requirements Cost                                                                                    |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| 1.1.1) Consolidated PY Requirements <sup>(1)</sup>                                                                                     |  | -                   | -             | 883.185              | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 883.185              | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Flyaway - Consolidated Prior Year Requirements Cost                                                                          |  | -                   | -             | 883.185              | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Hardware - (NR101) DAMA/MINI DAMA Cost                                                                                                 |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| 2.1.1) DAMA/MINI DAMA Procurement                                                                                                      |  | 5.000               | 70            | 0.350                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 0.350                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Hardware - (NR101) DAMA/MINI DAMA Cost                                                                                       |  | -                   | -             | 0.350                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Hardware - (NR777) FMP Installation (Ship) Cost                                                                                        |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| Recurring Cost                                                                                                                         |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |
| 3.1.1) MINI DAMA Ship                                                                                                                  |  | -                   | -             | 3.337                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Recurring Cost                                                                                                               |  | -                   | -             | 3.337                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Subtotal: Hardware - (NR777) FMP Installation (Ship) Cost                                                                              |  | -                   | -             | 3.337                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |  |  |
| Support - (NR777) FMP DSA (Ship) Cost                                                                                                  |  |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |  |  |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                 |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      | Date: February 2018 |               |                      |                     |               |                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 13                                                                                |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3215 / Satellite Communications Systems |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Satellite Communications Systems |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                         |                     |               |                      |                     |               |                                                                          |                     |               |                      | MDAP/MAIS Code:     |               |                                                                      |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                           |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                                            | Prior Years         |               |                      | FY 2017             |               |                                                                          | FY 2018             |               |                      | FY 2019 Base        |               |                                                                      | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                          | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                 | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| 4.1) MINI DAMA DSA (Ship)                                                                                                                                | -                   | -             | 0.354                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Support - (NR777) FMP DSA (Ship) Cost                                                                                                          | -                   | -             | 0.354                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Support - (NR555) Production Support Cost                                                                                                                |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| 5.1) DAMA/MINI DAMA                                                                                                                                      | -                   | -             | 0.231                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Support - (NR555) Production Support Cost                                                                                                      | -                   | -             | 0.231                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Gross/Weapon System Cost                                                                                                                                 | -                   | -             | 887.457              | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Remarks:<br>[Flyaway] Consolidated Prior Year Requirements include SHF, NESP, CBSP, and Spectral Warrior (SW) / Spider Net (SN) dollars.                 |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Footnotes:<br>(1) Consolidated Prior Year Requirements cost of \$883.185M includes SHF, NESP, CBSP, and Spectral Warrior (SW) / Spider Net (SN) dollars. |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-----------------------------------------------------------------------------------|--------------------|----------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                                                                 |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                        |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / (NR117) Global Broadcast Service (GBS) |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                                                                 |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                   |                    |                |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                             | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                    | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                                                               | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 206.522            | 6.622          | 5.024          | 15.302                                                                          | 3.200              | 18.502               | 24.117                 | 19.981         | 16.557         | 8.661                                                                             | 0.000              | 305.986        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                               | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 206.522            | 6.622          | 5.024          | 15.302                                                                          | 3.200              | 18.502               | 24.117                 | 19.981         | 16.557         | 8.661                                                                             | 0.000              | 305.986        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                                                               | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>206.522</b>     | <b>6.622</b>   | <b>5.024</b>   | <b>15.302</b>                                                                   | <b>3.200</b>       | <b>18.502</b>        | <b>24.117</b>          | <b>19.981</b>  | <b>16.557</b>  | <b>8.661</b>                                                                      | <b>0.000</b>       | <b>305.986</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                |                                                                                 |                    |                      |                        |                |                |                                                                                   |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                                                                               | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                                                                               | -                  | -                    | -                      | -              | -              | -                                                                                 | -                  | -              |
| <b>Description:</b><br>GLOBAL BROADCAST SERVICE (GBS - NR117): GBS is a Joint Military Satellite Communications (MILSATCOM) program with the Air Force as Executive Agent for all services. GBS provides a continuous, high speed, one way information flow of high volume data to units ashore, afloat or special operations. GBS supports routine operations, training and military exercises, special activities, crises, situational awareness, weapons targeting, reconnaissance and the transition to and conduct of opposed operations short of nuclear war. Deployment of GBS internet protocol (IP) terminals will allow expanded use of military intelligence collection in a broader spectrum using MILSATCOM architecture. The Navy GBS Split IP effort enables near-real-time duplex asymmetric communications connectivity to ships/subs. GBS plays a pivotal role to support the Assured Command and Control (AC2) environment. |                    |                |                |                                                                                 |                    |                      |                        |                |                |                                                                                   |                    |                |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                        |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>1 / (NR117) Global Broadcast Service (GBS) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                 |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                   |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                          |                                |                                |                                | <b>Modification Type:</b> TBD                                                   |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                   |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                             | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                    | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| <i>Modification Item 1 of 1:</i> (NR117) Global Broadcast Service (GBS)          |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| 1.1.1) Afloat Receive Terminal - NonOrganic                                      | 156 / 101.297                  | 1 / 0.485                      | - / -                          | 12 / 6.055                                                                      | - / -                          | 12 / 6.055                     | 18 / 9.264                     | 19 / 9.975                     | 16 / 8.568                     | 6 / 3.277                                                                         | - / -                          | 228 / 138.921                  |  |
| 1.1.2) Portable Receive Terminal - Organic <sup>(2)</sup>                        | 48 / 10.621                    | 9 / 2.079                      | 15 / 3.534                     | 19 / 4.566                                                                      | 13 / 3.120                     | 32 / 7.686                     | 34 / 8.335                     | 16 / 4.001                     | 15 / 3.826                     | 15 / 3.902                                                                        | - / -                          | 184 / 43.984                   |  |
| 1.1.3) Modem Upgrades - NonOrganic                                               | - / 10.744                     | - / -                          | - / -                          | - / -                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                             | - / -                          | - / 10.744                     |  |
| 1.1.4) Interim Modem Upgrades - NonOrganic                                       | 125 / 0.880                    | - / -                          | - / -                          | - / -                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                             | - / -                          | 125 / 0.880                    |  |
| <i>Subtotal: Recurring</i>                                                       | - / 123.542                    | - / 2.564                      | - / 3.534                      | - / 10.621                                                                      | - / 3.120                      | - / 13.741                     | - / 17.599                     | - / 13.976                     | - / 12.394                     | - / 7.179                                                                         | - / 0.000                      | - / 194.529                    |  |
| <i>Subtotal: (NR117) Global Broadcast Service (GBS)</i>                          | 329 / 123.542                  | 10 / 2.564                     | 15 / 3.534                     | 31 / 10.621                                                                     | 13 / 3.120                     | 44 / 13.741                    | 52 / 17.599                    | 35 / 13.976                    | 31 / 12.394                    | 21 / 7.179                                                                        | - / -                          | 537 / 194.529                  |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 123.542                    | - / 2.564                      | - / 3.534                      | - / 10.621                                                                      | - / 3.120                      | - / 13.741                     | - / 17.599                     | - / 13.976                     | - / 12.394                     | - / 7.179                                                                         | - / 0.000                      | - / 194.529                    |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| 2.1) Production Support                                                          | - / 22.012                     | - / 0.140                      | - / 0.195                      | - / 0.637                                                                       | - / 0.080                      | - / 0.717                      | - / 0.863                      | - / 0.662                      | - / 0.526                      | - / 0.271                                                                         | - / -                          | - / 25.386                     |  |
| 2.2) Shore Pre Installation Design                                               | - / 0.264                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                       | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                         | - / -                          | - / 0.264                      |  |
| 2.3) Afloat Receive Terminal DSA <sup>(3)</sup>                                  | - / 9.264                      | - / 0.181                      | - / 0.026                      | - / 1.711                                                                       | - / 0.000                      | - / 1.711                      | - / 1.944                      | - / 1.737                      | - / 0.881                      | - / 0.157                                                                         | - / -                          | - / 15.901                     |  |
| 2.4) Engineering Change Order <sup>(4)</sup>                                     | - / 0.000                      | - / 3.114                      | - / 1.110                      | - / 0.350                                                                       | - / 0.000                      | - / 0.350                      | - / 0.306                      | - / 0.398                      | - / 0.000                      | - / 0.000                                                                         | - / -                          | - / 5.278                      |  |
| <i>Subtotal: Support</i>                                                         | - / 31.540                     | - / 3.435                      | - / 1.331                      | - / 2.698                                                                       | - / 0.080                      | - / 2.778                      | - / 3.113                      | - / 2.797                      | - / 1.407                      | - / 0.428                                                                         | - / 0.000                      | - / 46.829                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| <i>Modification Item 1 of 1:</i> (NR117) Global Broadcast Service (GBS)          | - / 51.440                     | - / 0.623                      | - / 0.159                      | - / 1.983                                                                       | - / 0.000                      | - / 1.983                      | - / 3.405                      | - / 3.208                      | - / 2.756                      | - / 1.054                                                                         | - / 0.000                      | - / 64.628                     |  |
| <i>Subtotal: Installation</i>                                                    | - / 51.440                     | - / 0.623                      | - / 0.159                      | - / 1.983                                                                       | - / -                          | - / 1.983                      | - / 3.405                      | - / 3.208                      | - / 2.756                      | - / 1.054                                                                         | - / 0.000                      | - / 64.628                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                   |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>206.522</b>                 | <b>6.622</b>                   | <b>5.024</b>                   | <b>15.302</b>                                                                   | <b>3.200</b>                   | <b>18.502</b>                  | <b>24.117</b>                  | <b>19.981</b>                  | <b>16.557</b>                  | <b>8.661</b>                                                                      | <b>0.000</b>                   | <b>305.986</b>                 |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                     |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                            |                                       |                                       | <b>Date:</b> February 2018                                                        |                                       |                                       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13               |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                       |                                            |                                       |                                       | <b>Modification Number / Title:</b><br>1 / (NR117) Global Broadcast Service (GBS) |                                       |                                       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                        |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                            | <b>MDAP/MAIS Code:</b>                |                                       |                                                                                   |                                       |                                       |
| <b>Modification Item 1 of 1:</b> (NR117) Global Broadcast Service (GBS)                        |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| <b>Manufacturer Information</b>                                                                |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| Manufacturer Name: RAYTHEON                                                                    |                                       |                                       |                                       |                                       |                                                                                 |                                       | Manufacturer Location: Sterling, VA        |                                       |                                       |                                                                                   |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 2                                                 |                                       |                                       |                                       |                                       |                                                                                 |                                       | Production Leadtime <i>(in Months)</i> : 5 |                                       |                                       |                                                                                   |                                       |                                       |
| <b>Dates</b>                                                                                   | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                  | <b>FY 2022</b>                        | <b>FY 2023</b>                             |                                       |                                       |                                                                                   |                                       |                                       |
| Contract Dates                                                                                 | Aug 2017                              |                                       | Dec 2018                              |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| Delivery Dates                                                                                 | Jan 2018                              |                                       | May 2019                              |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| Manufacturer Name: Aqyr Technologies, Inc.                                                     |                                       |                                       |                                       |                                       |                                                                                 |                                       | Manufacturer Location: Nashua, NH          |                                       |                                       |                                                                                   |                                       |                                       |
| Administrative Leadtime <i>(in Months)</i> : 2                                                 |                                       |                                       |                                       |                                       |                                                                                 |                                       | Production Leadtime <i>(in Months)</i> : 3 |                                       |                                       |                                                                                   |                                       |                                       |
| <b>Dates</b>                                                                                   | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019</b>                        | <b>FY 2020</b>                        | <b>FY 2021</b>                                                                  | <b>FY 2022</b>                        | <b>FY 2023</b>                             |                                       |                                       |                                                                                   |                                       |                                       |
| Contract Dates                                                                                 | Aug 2017                              | Dec 2017                              | Dec 2018                              |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| Delivery Dates                                                                                 | Nov 2017                              | Mar 2018                              | Mar 2019                              |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| <b>Installation Information</b>                                                                |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Afloat Receive Terminal |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                            |                                       |                                       |                                                                                   |                                       |                                       |
| <b>Installation Cost</b>                                                                       | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                              | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                             | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                    | <b>To Complete</b>                    | <b>Total</b>                          |
|                                                                                                | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                           | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>      | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                             | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |
| Prior Years                                                                                    | 152 / 45.190                          | 4 / 0.623                             | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | - / -                                 | - / -                                 | - / -                                                                             | 0 / 0.000                             | 156 / 45.813                          |
| FY 2017                                                                                        | - / -                                 | - / -                                 | 1 / 0.159                             | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | - / -                                 | - / -                                 | - / -                                                                             | 0 / 0.000                             | 1 / 0.159                             |
| FY 2018                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | - / -                                 | - / -                                 | - / -                                                                             | - / -                                 | - / -                                 |
| FY 2019                                                                                        | - / -                                 | - / -                                 | - / -                                 | 12 / 1.983                            | 0 / 0.000                                                                       | 12 / 1.983                            | - / -                                      | - / -                                 | - / -                                 | - / -                                                                             | 0 / 0.000                             | 12 / 1.983                            |
| FY 2020                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | 18 / 3.405                                 | - / -                                 | - / -                                 | - / -                                                                             | 0 / 0.000                             | 18 / 3.405                            |
| FY 2021                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | 19 / 3.208                            | - / -                                 | - / -                                                                             | 0 / 0.000                             | 19 / 3.208                            |
| FY 2022                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | - / -                                 | 16 / 2.756                            | - / -                                                                             | 0 / 0.000                             | 16 / 2.756                            |
| FY 2023                                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | - / -                                 | - / -                                 | 6 / 1.054                                                                         | 0 / 0.000                             | 6 / 1.054                             |
| To Complete                                                                                    | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                      | - / -                                 | - / -                                 | - / -                                                                             | - / -                                 | - / -                                 |
| Total                                                                                          | 152 / 45.190                          | 4 / 0.623                             | 1 / 0.159                             | 12 / 1.983                            | 0 / 0.000                                                                       | 12 / 1.983                            | 18 / 3.405                                 | 19 / 3.208                            | 16 / 2.756                            | 6 / 1.054                                                                         | 0 / 0.000                             | 228 / 58.378                          |

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|------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|----------------|-----------|-----------|------------------------|----------------|-----------|-----------|-----------|-----------------------------------------------------------------------------------|-----------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                     |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   | <b>Date:</b> February 2018        |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13               |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                       |                                       |                |           |           |                        |                |           |           |           | <b>Modification Number / Title:</b><br>1 / (NR117) Global Broadcast Service (GBS) |                                   |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                        |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           | <b>MDAP/MAIS Code:</b> |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> (NR117) Global Broadcast Service (GBS)                        |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Afloat Receive Terminal |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                   |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
|                                                                                                | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                        |                                                                                 |                                       |                                       | <b>FY 2020</b> |           |           |                        | <b>FY 2021</b> |           |           |           | <b>FY 2022</b>                                                                    |                                   |           |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                                |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                                                                       | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>              | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                                         | <b>Q2</b>                         | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                             | 152        | -                                     | -                                     | 2                                     | 2                                     | -                                     | 1                                     | -                                     | -                                     | -                                     | -                                                                               | 6                                     | 6                                     | -              | -         | 9         | 9                      | -              | -         | 10        | 9         | -                                                                                 | -                                 | 8         | 8         | -              | -         | 3         | 3         | -         | 228        |
| Out                                                                                            | 152        | -                                     | -                                     | 2                                     | 2                                     | -                                     | -                                     | 1                                     | -                                     | -                                     | -                                                                               | -                                     | 6                                     | 6              | -         | -         | 9                      | 9              | -         | -         | 10        | 9                                                                                 | -                                 | -         | 8         | 8              | -         | -         | 3         | 3         | 228        |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Interim Modem Upgrades  |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                       |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                  | <b>To Complete</b>                    | <b>Total</b>                          |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
|                                                                                                |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                           | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| Prior Years                                                                                    |            | 125 / 6.250                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | 0 / 0.000                             | 125 / 6.250                           |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2017                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2018                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2019                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2020                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2021                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2022                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| FY 2023                                                                                        |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| To Complete                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| Total                                                                                          |            | 125 / 6.250                           | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | 0 / 0.000                             | 125 / 6.250                           |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                   |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
|                                                                                                | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                        |                                                                                 |                                       |                                       | <b>FY 2020</b> |           |           |                        | <b>FY 2021</b> |           |           |           | <b>FY 2022</b>                                                                    |                                   |           |           | <b>FY 2023</b> |           |           |           |           |            |
|                                                                                                |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                                                                       | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>              | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                                         | <b>Q2</b>                         | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>TC</b> | <b>Tot</b> |
| In                                                                                             | 120        | 5                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                               | -                                     | -                                     | -              | -         | -         | -                      | -              | -         | -         | -         | -                                                                                 | -                                 | -         | -         | -              | -         | -         | -         | -         | 125        |
| Out                                                                                            | 120        | 5                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                               | -                                     | -                                     | -              | -         | -         | -                      | -              | -         | -         | -         | -                                                                                 | -                                 | -         | -         | -              | -         | -         | -         | -         | 125        |
| <b>Method of Implementation (Organic):</b> Portable Receive Terminal - Not Installed           |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |
|                                                                                                |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   | <b>Installation Quantity:</b> 184 |           |           |                |           |           |           |           |            |
| <b>Footnotes:</b>                                                                              |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                |           |           |                        |                |           |           |           |                                                                                   |                                   |           |           |                |           |           |           |           |            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                 | <b>Date:</b> February 2018                                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems | <b>Modification Number / Title:</b><br>1 / (NR117) Global Broadcast Service (GBS) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                 | <b>MDAP/MAIS Code:</b>                                                            |
| <p>(2) 1. NR117: FY18 Portable Receive Terminal procurements increased from PB 18 due to the FY18 funds realignment from the CBSP Program to support the WINDOWS 10 Mandate for PKI upgrade implementation. 2. GBS Portable Receive Terminals are turn-key and therefore do not have installation costs associated with them. 3. FY 2019 \$3.2M Other Contingency Operations (OCO) funding procures quantity 13 Portable GBS Systems for expanding Navy SEAL combat operations in US Central Command (CENTCOM) and other Areas of Responsibility (AORs). Increased operational use has reduced service life of legacy Portable GBS systems.</p> <p>(3) FY19 DSA cost growth supports increased installations from Qty 1 in FY18 to Qty 12 in FY19.</p> <p>(4) Engineering Change Order (ECO) is required to implement Cybersecurity upgrades to increase system performance for fielded GBS Afloat Receive Terminals and Portable Receive Terminals. A portion of FY17 funding began Non-Recurring Engineering (NRE) to support end to end integration testing for Public Key Infrastructure (PKI) implementation. FY17 GBS funds were also realigned to CBSP Program (NR112) to accelerate a Dual Force Level Variant (FLV) antenna with installation planned for FY18. FY18-21 procures and installs Win 10 PKI upgrades and performs associated integration, assembly and test.</p> |                                                                                 |                                                                                   |



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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|---------------------------------------------------------------------------------|----------------------|------------------------|----------------|----------------|--------------------------------------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                     |                                                                                 |                      |                        |                |                | <b>Date:</b> February 2018                                                                                   |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                      |                        |                |                | <b>Modification Number / Title:</b><br>2 / (NR112) Commercial Broadband<br>Satellite program (CBSP) - Afloat |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                     |                                                                                 |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                              |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                              | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                               | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                                            | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 135.532            | 7.792          | 2.260          | 13.703              | 0.000                                                                           | 13.703               | 14.773                 | 15.186         | 15.344         | 15.609                                                                                                       | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                                            | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 135.532            | 7.792          | 2.260          | 13.703              | 0.000                                                                           | 13.703               | 14.773                 | 15.186         | 15.344         | 15.609                                                                                                       | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                                            | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>135.532</b>     | <b>7.792</b>   | <b>2.260</b>   | <b>13.703</b>       | <b>0.000</b>                                                                    | <b>13.703</b>        | <b>14.773</b>          | <b>15.186</b>  | <b>15.344</b>  | <b>15.609</b>                                                                                                | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                     |                                                                                 |                      |                        |                |                |                                                                                                              |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                                            | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                                            | -                  | -                 |
| <b>Description:</b><br>The Navy's next generation Commercial Satellite Communications (SATCOM) program provides the only source of wideband SATCOM to Patrol Coastal (PCs) and Mine Countermeasure Ships (MCMs), diversity for Military Satellite Communications (MILSATCOM) on Unit Level Variant (ULV) ships, and augments MILSATCOM on Force Level Variant (FLV) ships. CBSP will support the procurement and installation of a commercial terminal and service architecture that significantly increase data throughput, Navy Anti-Access Area Denial posture, and SATCOM reliability and space resiliency by providing band diversity, assured access, and redundancy for MILSATCOM. Included in the program are Small Ship Variant (SSV - Patrol Coastal or Mine Countermeasure Ships), Unit Level Variant (ULV - examples are Guided Missile Destroyers or Guided Missile Frigates), and Force Level Variant (FLV - large combatant ships such as carriers). |                    |                |                |                     |                                                                                 |                      |                        |                |                |                                                                                                              |                    |                   |

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|---------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                         |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   | Date: February 2018                                                                                   |                                   |                                   |                                   |                                   |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 13                   |                                   |                                   |                                   | P-1 Line Item Number / Title:<br>3215 / Satellite Communications Systems |                                   |                                   |                                   | Modification Number / Title:<br>2 / (NR112) Commercial Broadband<br>Satellite program (CBSP) - Afloat |                                   |                                   |                                   |                                   |
| ID Code (A=Service Ready, B=Not Service Ready) :                                            |                                   |                                   |                                   |                                                                          |                                   |                                   | MDAP/MAIS Code:                   |                                                                                                       |                                   |                                   |                                   |                                   |
| Models of Systems Affected: Submarines, ships                                               |                                   |                                   | Modification Type: upgrade        |                                                                          |                                   |                                   |                                   | Related RDT&E PEs:                                                                                    |                                   |                                   |                                   |                                   |
| Financial Plan                                                                              | Prior Years                       | FY 2017                           | FY 2018                           | FY 2019<br>Base                                                          | FY 2019<br>OCO                    | FY 2019<br>Total                  | FY 2020                           | FY 2021                                                                                               | FY 2022                           | FY 2023                           | To<br>Complete                    | Total                             |
|                                                                                             | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                        | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                                     | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |
| Procurement                                                                                 |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| Modification Item 1 of 1: (NR112) Commercial<br>Broadband Satellite program (CBSP) - Afloat |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| B Kits                                                                                      |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| Recurring                                                                                   |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| 1.1.1) Small Ship Variant (SSV) - NonOrganic                                                |                                   | 27 / 4.290                        | - / -                             | - / -                                                                    | - / -                             | - / -                             | - / -                             | - / -                                                                                                 | - / -                             | - / -                             | - / -                             | 27 / 4.290                        |
| 1.1.2) Unit Level Variant (ULV) - NonOrganic <sup>(5)</sup>                                 |                                   | 31 / 30.476                       | - / -                             | - / -                                                                    | 6 / 5.622                         | - / -                             | 6 / 5.622                         | 5 / 4.830                                                                                             | 6 / 5.982                         | 6 / 6.168                         | 4 / 4.236                         | Continuing                        |
| 1.1.3) Force Level Variant (FLV) - NonOrganic <sup>(6)</sup>                                |                                   | 22 / 36.078                       | 2 / 4.606                         | - / -                                                                    | - / -                             | - / -                             | 1 / 1.914                         | - / -                                                                                                 | - / -                             | - / -                             | - / -                             | 25 / 42.598                       |
| Subtotal: Recurring                                                                         |                                   | - / 70.844                        | - / 4.606                         | - / -                                                                    | - / 5.622                         | - / -                             | - / 5.622                         | - / 6.744                                                                                             | - / 5.982                         | - / 6.168                         | - / 4.236                         | Continuing                        |
| Subtotal: (NR112) Commercial Broadband Satellite<br>program (CBSP) - Afloat                 |                                   | 80 / 70.844                       | 2 / 4.606                         | - / -                                                                    | 6 / 5.622                         | - / -                             | 6 / 5.622                         | 6 / 6.744                                                                                             | 6 / 5.982                         | 6 / 6.168                         | 4 / 4.236                         | Continuing                        |
| Subtotal: Procurement, All Modification Items                                               |                                   | - / 70.844                        | - / 4.606                         | - / -                                                                    | - / 5.622                         | - / -                             | - / 5.622                         | - / 6.744                                                                                             | - / 5.982                         | - / 6.168                         | - / 4.236                         | Continuing                        |
| Support (All Modification Items)                                                            |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| 2.1) Training Equipment                                                                     |                                   | - / 0.304                         | - / -                             | - / -                                                                    | - / -                             | - / -                             | - / -                             | - / -                                                                                                 | - / -                             | - / -                             | - / -                             | - / 0.304                         |
| 2.2) Engineering Change Orders <sup>(7)</sup>                                               |                                   | - / 1.735                         | - / 0.210                         | - / 0.079                                                                | - / 2.960                         | - / -                             | - / 2.960                         | - / 0.522                                                                                             | - / 0.328                         | - / 0.311                         | - / 0.394                         | Continuing                        |
| 2.3) Production Support                                                                     |                                   | - / -                             | - / 0.275                         | - / -                                                                    | - / 0.365                         | - / -                             | - / 0.365                         | - / 0.450                                                                                             | - / 0.424                         | - / 0.370                         | - / 0.254                         | Continuing                        |
| 2.4) Other (DSA) <sup>(8)</sup>                                                             |                                   | - / 11.685                        | - / 0.454                         | - / 0.401                                                                | - / 1.033                         | - / -                             | - / 1.033                         | - / 1.048                                                                                             | - / 1.427                         | - / 1.458                         | - / 1.537                         | Continuing                        |
| Subtotal: Support                                                                           |                                   | - / 13.724                        | - / 0.939                         | - / 0.480                                                                | - / 4.358                         | - / -                             | - / 4.358                         | - / 2.020                                                                                             | - / 2.179                         | - / 2.139                         | - / 2.185                         | Continuing                        |
| Installation                                                                                |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| Modification Item 1 of 1: (NR112) Commercial<br>Broadband Satellite program (CBSP) - Afloat |                                   | - / 50.964                        | - / 2.247                         | - / 1.780                                                                | - / 3.723                         | - / 0.000                         | - / 3.723                         | - / 6.009                                                                                             | - / 7.025                         | - / 7.037                         | - / 9.188                         | Continuing                        |
| Subtotal: Installation                                                                      |                                   | - / 50.964                        | - / 2.247                         | - / 1.780                                                                | - / 3.723                         | - / -                             | - / 3.723                         | - / 6.009                                                                                             | - / 7.025                         | - / 7.037                         | - / 9.188                         | Continuing                        |
| Total                                                                                       |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |
| Total Cost (Procurement + Support + Installation)                                           |                                   | 135.532                           | 7.792                             | 2.260                                                                    | 13.703                            | 0.000                             | 13.703                            | 14.773                                                                                                | 15.186                            | 15.344                            | 15.609                            | Continuing                        |
|                                                                                             |                                   |                                   |                                   |                                                                          |                                   |                                   |                                   |                                                                                                       |                                   |                                   |                                   |                                   |

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|---------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|---------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-----------------------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                            |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                      |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |           |                                |           |                                |                                       |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> (NR112) Commercial Broadband Satellite program (CBSP) - Afloat                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Harris - CBSP FLV                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                | Manufacturer Location: Palm Beach, FL |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                | Production Leadtime (in Months): 6    |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                          |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                  |           |                                |           | <b>FY 2020</b>                 |                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                        |            | Feb 2017                       |           |                                |           |                                |           |                                |           | Dec 2018                                                                        |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                        |            | Aug 2017                       |           |                                |           |                                |           |                                |           | Jun 2019                                                                        |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Tiger Team:: Installation Name: Small Ship Variant (SSV), Unit Level Variant (ULV) and Force Level V |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                              |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                              |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                       | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                                            |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                       |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                  |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                       | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                           |            | 78 / 50.964                    |           | 2 / 2.247                      |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                                     |           | 0 / 0.000                      |           | 80 / 53.211                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                                               |            | - / -                          |           | - / -                          |           | 2 / 1.780                      |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                                     |           | 0 / 0.000                      |           | 2 / 1.780                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | 3 / 3.723                      |           | 0 / 0.000                                                                       |           | 3 / 3.723                      |           | 3 / 3.582                      |                                       | - / -                          |           | - / -                          |           | - / -                                                                                                     |           | 0 / 0.000                      |           | 6 / 7.305                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | 2 / 2.427                      |                                       | 4 / 4.629                      |           | - / -                          |           | - / -                                                                                                     |           | 0 / 0.000                      |           | 6 / 7.056                      |           |                |           |           |           |           |            |
| FY 2021                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | 2 / 2.396                      |           | 4 / 4.527                      |           | - / -                                                                                                     |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| FY 2022                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | - / -                          |           | 2 / 2.510                      |           | 4 / 5.205                                                                                                 |           | 0 / 0.000                      |           | 6 / 7.715                      |           |                |           |           |           |           |            |
| FY 2023                                                                                                                               |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | 2 / 3.983                                                                                                 |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| To Complete                                                                                                                           |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                       | - / -                          |           | - / -                          |           | - / -                                                                                                     |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| Total                                                                                                                                 |            | 78 / 50.964                    |           | 2 / 2.247                      |           | 2 / 1.780                      |           | 3 / 3.723                      |           | 0 / 0.000                                                                       |           | 3 / 3.723                      |           | 5 / 6.009                      |                                       | 6 / 7.025                      |           | 6 / 7.037                      |           | 6 / 9.188                                                                                                 |           | Continuing                     |           | Continuing                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                       | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                  |           |                                |           | <b>FY 2020</b>                 |                                       |                                |           | <b>FY 2021</b>                 |           |                                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                       |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                       | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                             | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                                 | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                    | 78         | -                              | 2         | -                              | -         | -                              | 1         | 1                              | -         | -                                                                               | -         | 2                              | 1         | -                              | 3                                     | 1                              | 1         | 1                              | 3         | 1                                                                                                         | 1         | 2                              | 2         | 1                              | 1         | 2              | 2         | 1         | 1         | Cont.     | Cont.      |
| Out                                                                                                                                   | 76         | 2                              | -         | 2                              | -         | -                              | -         | 1                              | 1         | -                                                                               | -         | -                              | 2         | 1                              | -                                     | 3                              | 1         | 1                              | 1         | 3                                                                                                         | 1         | 1                              | 2         | 2                              | 1         | 1              | 2         | 2         | 1         | Cont.     | Cont.      |
| <b>Footnotes:</b><br><sup>(5)</sup> FY19 procures Qty 6 CBSP Unit Level Variant (ULV) terminals in support of DDG ship class.         |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                       |                                |           |                                |           |                                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 | <b>Date:</b> February 2018                                                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems | <b>Modification Number / Title:</b><br>2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 | <b>MDAP/MAIS Code:</b>                                                                                    |
| <p><sup>(6)</sup> 1. Force Level Variant (FLV) terminals include single and dual antenna configurations which influences average unit cost. FY17 funding reflects a realignment from the GBS Program and increases procurements from Qty 1 (single FLV antenna \$1.830M) to Qty 2 for a dual FLV antenna (\$2.776M). 2. FY17 Qty 1 install shifted to FY18 due to availability change for AS 39 vessel EMORY S. LAND. FY17 Install funds are provided to cover installation cost overruns. 3. FY18 ECO and DSA adjustments are due to a reprioritization to cover Qty 1 install increase.</p> <p><sup>(7)</sup> Engineering changes required to implement bandwidth efficiency technologies to increase system performance for fielded Small Ship Variants (SSV) and Force Level Variants (FLV). Beginning in FY19, NRE funding supports both SSV and FLV, while FY18 and prior funded SSV only.</p> <p><sup>(8)</sup> DSA estimates are based off of a percentage of the total installation, with 75% of costs being required the year prior (Qty 3 DDGs installed in FY20) for all pre-installation design work and 25% required the year of the actual installation (Qty 1 DDG installed in FY19). The FY18 to FY19 DSA cost variance is due to increased ship quantities being installed.</p> |                                                                                 |                                                                                                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                                 | <b>Date:</b> February 2018                                        |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems | <b>Modification Number / Title:</b><br>3 / (NR118) JMINI CS Shore |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 16.977      | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 1.557   | 0.000   | 0.000   | 0.000   | 0.000       | 18.534 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 16.977      | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 1.557   | 0.000   | 0.000   | 0.000   | 0.000       | 18.534 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 16.977      | 0.000   | 0.000   | 0.000        | 0.000       | 0.000           | 1.557   | 0.000   | 0.000   | 0.000   | 0.000       | 18.534 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The Joint Ultra-High Frequency (UHF) Military Satellite Communication (MILSATCOM) Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5 and 25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assigned Single Access (DASA) channels to maximize existing highly sought after SATCOM resources used to support operational strike missions as well as joint training and tactical exercises. The system provides decentralized web-based management of those resources for use as a situational awareness tool for Combatant Commanders and SATCOM Support Centers. The JMINI CS is required to operate beyond the original End of Life (EoL) in 2015 in order to continue to support mission critical operations through at least 2033. The globally integrated system consists of three major subsystems: Network Management System, Satellite Access Controller and the control terminals. The JMINI CS system refresh effort will replace obsolete and unsupported components or subsystems while maintaining interoperability with existing systems. Design and integration efforts were funded with RDTEN.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                        |                                |                                |                                |                                                                          |                                |                                |                                | Date: February 2018                                        |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 13  |                                |                                |                                | P-1 Line Item Number / Title:<br>3215 / Satellite Communications Systems |                                |                                |                                | Modification Number / Title:<br>3 / (NR118) JMINI CS Shore |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                           |                                |                                |                                |                                                                          |                                |                                | MDAP/MAIS Code:                |                                                            |                                |                                |                                |                                |  |
| Models of Systems Affected: [No Model Specified]                           |                                |                                | Modification Type: TBD         |                                                                          |                                |                                |                                | Related RDT&E PEs:                                         |                                |                                |                                |                                |  |
| Financial Plan                                                             | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                             | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                    | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                             | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: (NR118) JMINI CS Shore                           |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| B Kits                                                                     |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Recurring                                                                  |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| 1.1.1) JMINI Control System Shore - NonOrganic                             |                                | 5 / 11.756                     | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                      | - / -                          | - / -                          | - / -                          | 5 / 11.756                     |  |
| 1.1.2) MILCON P-913: Shore Based Enterprise Network Enhancements - Organic |                                | - / -                          | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | 1 / 1.557                                                  | - / -                          | - / -                          | - / -                          | 1 / 1.557                      |  |
| Subtotal: Recurring                                                        |                                | - / 11.756                     | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | - / 1.557                                                  | - / -                          | - / -                          | - / -                          | - / 0.000                      |  |
| Subtotal: (NR118) JMINI CS Shore                                           |                                | 5 / 11.756                     | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | 1 / 1.557                                                  | - / -                          | - / -                          | - / -                          | 6 / 13.313                     |  |
| Subtotal: Procurement, All Modification Items                              |                                | - / 11.756                     | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | - / 1.557                                                  | - / -                          | - / -                          | - / -                          | - / 13.313                     |  |
| Support (All Modification Items)                                           |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| 2.1) Production Support                                                    |                                | - / 0.666                      | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                      | - / -                          | - / -                          | - / -                          | - / 0.666                      |  |
| Subtotal: Support                                                          |                                | - / 0.666                      | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                      | - / -                          | - / -                          | - / 0.000                      | - / 0.666                      |  |
| Installation                                                               |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Modification Item 1 of 1: (NR118) JMINI CS Shore                           |                                | - / 4.555                      | - / 0.000                      | - / 0.000                                                                | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                  | - / 0.000                      | - / 0.000                      | - / 0.000                      | - / 4.555                      |  |
| Subtotal: Installation                                                     |                                | - / 4.555                      | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                      | - / -                          | - / -                          | - / 0.000                      | - / 4.555                      |  |
| Total                                                                      |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                          |                                | 16.977                         | 0.000                          | 0.000                                                                    | 0.000                          | 0.000                          | 0.000                          | 1.557                                                      | 0.000                          | 0.000                          | 0.000                          | 18.534                         |  |
|                                                                            |                                |                                |                                |                                                                          |                                |                                |                                |                                                            |                                |                                |                                |                                |  |

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|----------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                           |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                      |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                     |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |           |                                |           |                                |                                      |                                |           |                                |           | <b>Modification Number / Title:</b><br>3 / (NR118) JMINI CS Shore |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                | <b>MDAP/MAIS Code:</b>               |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> (NR118) JMINI CS Shore                                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: VIASAT                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                | Manufacturer Location: Carlsbad, CA. |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                | Production Leadtime (in Months): 1   |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                         |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                  |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                   |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: JMINI CS                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                             |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                              |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                      | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                    |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                      |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                  |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                      | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                    |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                          |            | 5 / 4.555                      |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | 0 / 0.000                      |           | 5 / 4.555                      |           |                |           |           |           |           |            |
| FY 2017                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                              |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                |            | 5 / 4.555                      |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                          |                                      | - / -                          |           | - / -                          |           | - / -                                                             |           | 0 / 0.000                      |           | 5 / 4.555                      |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                      | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                  |           |                                |           | <b>FY 2020</b>                 |                                      |                                |           | <b>FY 2021</b>                 |           |                                                                   |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                      |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                       | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                            | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                         | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                   | 5          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                               | -         | -                              | -         | -                              | -                                    | -                              | -         | -                              | -         | -                                                                 | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 5          |
| Out                                                                                                                  | 1          | 4                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                               | -         | -                              | -         | -                              | -                                    | -                              | -         | -                              | -         | -                                                                 | -         | -                              | -         | -                              | -         | -              | -         | -         | -         | -         | 5          |
| <b>Method of Implementation (Organic):</b> MILCON P-913: Shore Based Enterprise Network Enhancements - Not Installed |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           |                                                                   |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                |                                      |                                |           |                                |           | <b>Installation Quantity:</b> 1                                   |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                          |                    |                |                |                     |                                                                                 |                      |                        |                |                | <b>Date:</b> February 2018                                                                  |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                      |                        |                |                | <b>Modification Number / Title:</b><br>4 / Commercial Broadband Satellite Assured C2 Modems |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                             |                    |                |                |                     |                                                                                 |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                             |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                             | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                              | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                              | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                       | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                           | -                  | -             |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                  | 0.000              | 0.000          | 7.370          | 6.200               | 0.000                                                                           | 6.200                | 1.540                  | 0.000          | 0.000          | 0.000                                                                                       | 0.000              | 15.110        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                           | -                  | -             |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                     | 0.000              | 0.000          | 7.370          | 6.200               | 0.000                                                                           | 6.200                | 1.540                  | 0.000          | 0.000          | 0.000                                                                                       | 0.000              | 15.110        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                           | -                  | -             |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                         | <b>0.000</b>       | <b>0.000</b>   | <b>7.370</b>   | <b>6.200</b>        | <b>0.000</b>                                                                    | <b>6.200</b>         | <b>1.540</b>           | <b>0.000</b>   | <b>0.000</b>   | <b>0.000</b>                                                                                | <b>0.000</b>       | <b>15.110</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                       |                    |                |                |                     |                                                                                 |                      |                        |                |                |                                                                                             |                    |               |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                           | -                  | -             |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                   | -                                                                               | -                    | -                      | -              | -              | -                                                                                           | -                  | -             |
| <p><b>Description:</b></p> <p>Assured C2 Modems: Directly support Assured Command and Control (C2) posture, SATCOM reliability, space resiliency via band diversity and redundancy for MILSATCOM.</p> <p>Beginning in FY18, CBSP begins procurement of modems and peripheral equipment to the CBSP terminal to provide technology refresh and directly support Assured Command and Control (C2) communications.</p> |                    |                |                |                     |                                                                                 |                      |                        |                |                |                                                                                             |                    |               |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                        |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                                  |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13  |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>4 / Commercial Broadband Satellite Assured C2 Modems |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                           |                                |                                |                                |                                                                                 |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                             |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                           |                                |                                |                                | <b>Modification Type:</b> TBD                                                   |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                                             |                                |                                |  |
| <b>Financial Plan</b>                                                             | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                             | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                              | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                                |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                             |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Commercial Broadband Satellite Assured C2 Modems |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                             |                                |                                |  |
| A Kits                                                                            |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                             |                                |                                |  |
| Recurring                                                                         |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                             |                                |                                |  |
| 1.1.1) Assured C2 Modems - NonOrganic <sup>(9)</sup>                              | - / -                          | - / -                          | 165 / 3.830                    | 112 / 1.932                                                                     | - / -                          | 112 / 1.932                    | 40 / 0.600                     | - / -                          | - / -                          | - / -                                                                                       | - / -                          | 317 / 6.362                    |  |
| 1.1.2) Assured C2 Modems - Not Installed - Organic <sup>(10)</sup>                | - / -                          | - / -                          | 20 / 0.660                     | - / -                                                                           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                                       | - / -                          | 20 / 0.660                     |  |
| 1.1.3) Production Support - Assured C2 Modems - Organic                           | - / -                          | - / -                          | - / 0.270                      | - / 0.120                                                                       | - / -                          | - / 0.120                      | - / 0.036                      | - / -                          | - / -                          | - / -                                                                                       | - / -                          | - / 0.426                      |  |
| <i>Subtotal: Recurring</i>                                                        | - / 0.000                      | - / -                          | - / 4.760                      | - / 2.052                                                                       | - / -                          | - / 2.052                      | - / 0.636                      | - / -                          | - / -                          | - / -                                                                                       | - / 0.000                      | - / 7.448                      |  |
| <i>Subtotal: Commercial Broadband Satellite Assured C2 Modems</i>                 | - / -                          | - / -                          | 185 / 4.760                    | 112 / 2.052                                                                     | - / -                          | 112 / 2.052                    | 40 / 0.636                     | - / -                          | - / -                          | - / -                                                                                       | - / -                          | 337 / 7.448                    |  |
| <i>Subtotal: Procurement, All Modification Items</i>                              | - / 0.000                      | - / -                          | - / 4.760                      | - / 2.052                                                                       | - / -                          | - / 2.052                      | - / 0.636                      | - / -                          | - / -                          | - / -                                                                                       | - / 0.000                      | - / 7.448                      |  |
| <b>Installation</b>                                                               |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                             |                                |                                |  |
| <i>Modification Item 1 of 1:</i> Commercial Broadband Satellite Assured C2 Modems | - / 0.000                      | - / 0.000                      | - / 2.610                      | - / 4.148                                                                       | - / 0.000                      | - / 4.148                      | - / 0.904                      | - / 0.000                      | - / 0.000                      | - / 0.000                                                                                   | - / 0.000                      | - / 7.662                      |  |
| <i>Subtotal: Installation</i>                                                     | - / 0.000                      | - / -                          | - / 2.610                      | - / 4.148                                                                       | - / -                          | - / 4.148                      | - / 0.904                      | - / -                          | - / -                          | - / -                                                                                       | - / 0.000                      | - / 7.662                      |  |
| <b>Total</b>                                                                      |                                |                                |                                |                                                                                 |                                |                                |                                |                                |                                |                                                                                             |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                          | <b>0.000</b>                   | <b>0.000</b>                   | <b>7.370</b>                   | <b>6.200</b>                                                                    | <b>0.000</b>                   | <b>6.200</b>                   | <b>1.540</b>                   | <b>0.000</b>                   | <b>0.000</b>                   | <b>0.000</b>                                                                                | <b>0.000</b>                   | <b>15.110</b>                  |  |

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|----------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|---------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|------------------------------------|-----------|--------------------------------|----------------|--------------------------------|---------------------------------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                      |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13             |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                |           |                                |                |                                    |           |                                |                |                                | <b>Modification Number / Title:</b><br>4 / Commercial Broadband Satellite Assured C2 Modems |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                | <b>MDAP/MAIS Code:</b>             |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Commercial Broadband Satellite Assured C2 Modems            |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| Manufacturer Name: COMTECH                                                                   |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                | Manufacturer Location: Tempe, AZ   |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                       |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                | Production Leadtime (in Months): 3 |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Dates</b>                                                                                 |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                  |                                |           |                                | <b>FY 2020</b> |                                    |           |                                | <b>FY 2021</b> |                                |                                                                                             |                                | <b>FY 2022</b> |                                |           |             | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                               |            |                                |                                |           |                                | Jan 2018       |                                |           |                                | Jan 2019                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| Delivery Dates                                                                               |            |                                |                                |           |                                | Apr 2018       |                                |           |                                | Apr 2019                                                                        |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Installation Information</b>                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Assured C2 Modems     |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                     |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                 | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                     |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                                             | <b>To Complete</b>             |                | <b>Total</b>                   |           |             |                |           |           |           |           |            |
|                                                                                              |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                 | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)     |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                                             | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |             |                |           |           |           |           |            |
| Prior Years                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | - / -                          |           | - / -       |                |           |           |           |           |            |
| FY 2017                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | - / -                          |           | - / -       |                |           |           |           |           |            |
| FY 2018                                                                                      |            | - / -                          | - / -                          |           | 165 / 2.610                    |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | 0 / 0.000                      |           | 165 / 2.610 |                |           |           |           |           |            |
| FY 2019                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | 112 / 4.148                    |           | 0 / 0.000                      |                                                                                 | 112 / 4.148                    |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | 0 / 0.000                      |           | 112 / 4.148 |                |           |           |           |           |            |
| FY 2020                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | 40 / 0.904                     |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | 0 / 0.000                      |           | 40 / 0.904  |                |           |           |           |           |            |
| FY 2021                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | - / -                          |           | - / -       |                |           |           |           |           |            |
| FY 2022                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | - / -                          |           | - / -       |                |           |           |           |           |            |
| FY 2023                                                                                      |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | - / -                          |           | - / -       |                |           |           |           |           |            |
| To Complete                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                 | - / -                          |           | - / -                          |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | - / -                          |           | - / -       |                |           |           |           |           |            |
| Total                                                                                        |            | - / -                          | - / -                          |           | 165 / 2.610                    |                | 112 / 4.148                    |           | 0 / 0.000                      |                                                                                 | 112 / 4.148                    |           | 40 / 0.904                     |                | - / -                              |           | - / -                          |                | - / -                          |                                                                                             | - / -                          |                | 0 / 0.000                      |           | 317 / 7.662 |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                 |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
|                                                                                              | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                  |                                |           |                                | <b>FY 2020</b> |                                    |           |                                | <b>FY 2021</b> |                                |                                                                                             |                                | <b>FY 2022</b> |                                |           |             | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                              |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                       | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                          | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                                                   | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>   | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                           | -          | -                              | -                              | -         | -                              | -              | 45                             | 60        | 60                             | -                                                                               | 32                             | 40        | 40                             | -              | 20                                 | 10        | 10                             | -              | -                              | -                                                                                           | -                              | -              | -                              | -         | -           | -              | -         | -         | -         |           |            |
| Out                                                                                          | -          | -                              | -                              | -         | -                              | -              | 45                             | 60        | 60                             | -                                                                               | 32                             | 40        | 40                             | -              | 20                                 | 10        | 10                             | -              | -                              | -                                                                                           | -                              | -              | -                              | -         | -           | -              | -         | -         | -         |           |            |
| <b>Method of Implementation (Organic):</b> Assured C2 Modems - Not Installed - Not Installed |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |
|                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                | <b>Installation Quantity:</b> 20                                                            |                                |                |                                |           |             |                |           |           |           |           |            |
| <b>Footnotes:</b>                                                                            |            |                                |                                |           |                                |                |                                |           |                                |                                                                                 |                                |           |                                |                |                                    |           |                                |                |                                |                                                                                             |                                |                |                                |           |             |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 | <b>Date:</b> February 2018                                                                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems | <b>Modification Number / Title:</b><br>4 / Commercial Broadband Satellite Assured C2 Modems |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                 | <b>MDAP/MAIS Code:</b>                                                                      |
| <p><sup>(9)</sup> FY19 Average unit cost decrease compared to FY18 reflects upgraded modems buys that are less costly compared to new replacement modems that were procured in FY18. Procurements include a mix of upgraded modems, new replacement modems, and peripheral equipment required for this technology refresh. FY19 Installation unit cost increase compared to FY18 is due to the number of modems required by ship class and platform type. For example, a Dual Force Level Variant requires Qty 2 modem installations as compared to a Single Unit Level Variant (ULV) requiring Qty 1 modem.</p> <p><sup>(10)</sup> FY18 procures 20 new replacement modems for shore sites that do not require installation.</p> |                                                                                 |                                                                                             |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                                 | <b>Date:</b> February 2018                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems | <b>Modification Number / Title:</b><br>5 / CBSP Ka Kits |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                              |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                              | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                              | 0.000       | 0.000   | 0.000   | 6.000        | 0.000       | 6.000           | 2.100   | 5.300   | 5.200   | 0.000   | 0.000       | 18.600 |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                 | 0.000       | 0.000   | 0.000   | 6.000        | 0.000       | 6.000           | 2.100   | 5.300   | 5.200   | 0.000   | 0.000       | 18.600 |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                            | 0.000       | 0.000   | 0.000   | 6.000        | 0.000       | 6.000           | 2.100   | 5.300   | 5.200   | 0.000   | 0.000       | 18.600 |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Current National focus is on highly contested environments and has highlighted a growing need of protected communications, specifically in a satellite denied environment. Assured Command and Control (AC2) Ka Band Kits will increase band diversity and access to Wideband Global SATCOM (WGS) and mitigates risk of loss of Beyond Line of Sight (BLOS) wideband communications in a SATCOM-denied environment for the CBSP Program. With this capability, CBSP will be able to reduce risk of loss of C2 communications on Unit Level Variant (ULV)/ Field Level Variant (FLV) class Combatant ships in a denied environment which would assure Command and Control (C2) including ISR, NIPR/SIPR, VTC, and other critical capabilities. FY19 supports the procurement and installation of 3 ULV Kits.

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|---------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                          |                                |                                |                                |                                | Date: February 2018                              |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 13 |                                |                                |                                | P-1 Line Item Number / Title:<br>3215 / Satellite Communications Systems |                                |                                |                                |                                | Modification Number / Title:<br>5 / CBSP Ka Kits |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                          |                                |                                | MDAP/MAIS Code:                |                                |                                                  |                                |                                |                                |  |
| Models of Systems Affected: [No Model Specified]                          |                                |                                |                                | Modification Type: TBD                                                   |                                |                                |                                |                                | Related RDT&E PEs:                               |                                |                                |                                |  |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                             | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                          | FY 2023                        | To Complete                    | Total                          |  |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                               |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Modification Item 1 of 1: CBSP Ka Kits                                    |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| B Kits                                                                    |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Recurring                                                                 |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| 1.1.1) Unit Level Variant - NonOrganic <sup>(11)</sup>                    |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| 1.1.2) Force Level Variant - NonOrganic                                   |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Subtotal: Recurring                                                       |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Subtotal: CBSP Ka Kits                                                    |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Subtotal: Procurement, All Modification Items                             |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| 2.1) DSA                                                                  |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| 2.2) Production Support Ka Kits                                           |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| 2.3) Ka Kit Non-Recurring Engineering (NRE) <sup>(12)</sup>               |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Subtotal: Support                                                         |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Installation                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Modification Item 1 of 1: CBSP Ka Kits                                    |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Subtotal: Installation                                                    |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Total                                                                     |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                         |                                |                                |                                |                                                                          |                                |                                |                                |                                |                                                  |                                |                                |                                |  |

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|--------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------------------------------|-----------|--------------------------------|-----------|---------------------------------------|------------------------|--------------------------------|-----------|--------------------------------|-----------|---------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                 |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                      |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13           |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |           |                                |           |                                       |                        |                                |           |                                |           | <b>Modification Number / Title:</b><br>5 / CBSP Ka Kits |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       | <b>MDAP/MAIS Code:</b> |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CBSP Ka Kits                                              |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Harris - CBSP                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           | Manufacturer Location: Palm Beach, FL |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           | Production Leadtime (in Months): 3    |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                               |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                  |           |                                |           | <b>FY 2020</b>                        |                        |                                |           | <b>FY 2021</b>                 |           |                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                             |            |                                |           |                                |           |                                |           |                                |           | Dec 2018                                                                        |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                             |            |                                |           |                                |           |                                |           |                                |           | Mar 2019                                                                        |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Unit Level Variant  |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                              |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                        |                        | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                          |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                  |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)        |                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2017                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2018                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| FY 2019                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | 3 / 0.400                      |           | 0 / 0.000                                                                       |           | 3 / 0.400                      |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | 0 / 0.000                      |           | 3 / 0.400      |           |           |           |           |            |
| FY 2020                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | 6 / 0.626                             |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | 0 / 0.000                      |           | 6 / 0.626      |           |           |           |           |            |
| FY 2021                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | 5 / 0.522                      |           | - / -                          |           | - / -                                                   |           | - / -                          |           | 0 / 0.000                      |           | 5 / 0.522      |           |           |           |           |            |
| FY 2022                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | 6 / 0.636                      |           | - / -                                                   |           | - / -                          |           | 0 / 0.000                      |           | 6 / 0.636      |           |           |           |           |            |
| FY 2023                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| To Complete                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | - / -                          |           | - / -          |           |           |           |           |            |
| Total                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | 3 / 0.400                      |           | 0 / 0.000                                                                       |           | 3 / 0.400                      |           | 6 / 0.626                             |                        | 5 / 0.522                      |           | 6 / 0.636                      |           | - / -                                                   |           | 0 / 0.000                      |           | 20 / 2.184                     |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                            | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                                  |           |                                |           | <b>FY 2020</b>                        |                        |                                |           | <b>FY 2021</b>                 |           |                                                         |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                            |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                       | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                             | <b>Q2</b>              | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                               | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                         | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                               | 3         | -                              | -         | -                                     | 6                      | -                              | -         | -                              | 5         | -                                                       | -         | -                              | 6         | -                              | -         | -              | -         | -         | -         | -         | 20         |
| Out                                                                                        | -          | -                              | -         | -                              | -         | -                              | -         | -                              | -         | -                                                                               | -         | 1                              | 2         | -                                     | -                      | 3                              | 3         | -                              | -         | 2                                                       | 3         | -                              | -         | 3                              | 3         | -              | -         | -         | -         | -         | 20         |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Force Level Variant |            |                                |           |                                |           |                                |           |                                |           |                                                                                 |           |                                |           |                                       |                        |                                |           |                                |           |                                                         |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                              |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                        |                        | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                          |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                  |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)        |                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                          |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                           |           | - / -                          |           | - / -                                 |                        | - / -                          |           | - / -                          |           | - / -                                                   |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------|-----------|-----------|----------------|-----------|---------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                                      |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3215 / Satellite Communications Systems |                                       |                                       |                                       |                                       |                        |           |           |                |           | <b>Modification Number / Title:</b><br>5 / CBSP Ka Kits |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> CBSP Ka Kits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Force Level Variant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                                                                  | <b>FY 2023</b>                        | <b>To Complete</b>                    | <b>Total</b>                          |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                           | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 7 / 0.678                             | - / -                                                                           | - / -                                 | 0 / 0.000                             | 7 / 0.678                             |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 6 / 0.564                                                                       | - / -                                 | 0 / 0.000                             | 6 / 0.564                             |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                                           | - / -                                 | - / -                                 | - / -                                 |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | 7 / 0.678                             | 6 / 0.564                                                                       | - / -                                 | 0 / 0.000                             | 13 / 1.242                            |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>PYS</b> | <b>FY 2017</b>                        |                                       |                                       |                                       | <b>FY 2018</b>                        |                                       |                                       |                                       | <b>FY 2019</b>                                                                  |                                       |                                       |                                       | <b>FY 2020</b>                        |                        |           |           | <b>FY 2021</b> |           |                                                         |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                                                                       | <b>Q2</b>                             | <b>Q3</b>                             | <b>Q4</b>                             | <b>Q1</b>                             | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                               | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                               | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | 7         | -                                                       | -         | -              | 6         | -         | -         | -              | -         | -         | -         | -         | 13         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -          | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                     | -                                                                               | -                                     | -                                     | -                                     | -                                     | -                      | -         | -         | -              | -         | 3                                                       | 4         | -              | -         | 3         | 3         | -              | -         | -         | -         | -         | 13         |
| <b>Footnotes:</b><br><sup>(11)</sup> FY19 supports the procurement and installation of 3 ULV Ka Kits in an effort to reduce risk of loss of C2 communications on Unit Level Variant (ULV) class Combatant ships in a denied environment which would assure Command and Control (C2).<br><sup>(12)</sup> FY19 Non-Recurring Engineering (NRE) will fund the CBSP Original Equipment Manufacturer (OEM) to design and develop a Force Level Variant (FLV) upgrade kit to replace the existing C/Ku-band feed assembly with a C/Ka-band feed assembly. The design will be consistent with the current feed assembly which will allow for replacement without changing the design of the FLV terminal. |            |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                       |                                                                                 |                                       |                                       |                                       |                                       |                        |           |           |                |           |                                                         |           |                |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                 |                    |                |                |                                               |                    |                      |                                                                              |                                            |                | <b>Date:</b> February 2018 |                    |                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 13: Satellite Communications |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                            |                |                            |                    |                  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                          |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                              | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                  |
| <b>Line Item MDAP/MAIS Code:</b> 290                                                                                                                                              |                    |                |                |                                               |                    |                      |                                                                              |                                            |                |                            |                    |                  |
| <b>Resource Summary</b>                                                                                                                                                           | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                               | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>     |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                     | -                  | -              | -              | -                                             | -                  | -                    | -                                                                            | -                                          | -              | -                          | -                  | -                |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                | 1,053.558          | 33.992         | 69.764         | 113.885                                       | 0.000              | 113.885              | 92.150                                                                       | 21.536                                     | 31.279         | 19.072                     | 73.062             | 1,508.298        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                             | -                  | -              | -              | -                                             | -                  | -                    | -                                                                            | -                                          | -              | -                          | -                  | -                |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                   | 1,053.558          | 33.992         | 69.764         | 113.885                                       | 0.000              | 113.885              | 92.150                                                                       | 21.536                                     | 31.279         | 19.072                     | 73.062             | 1,508.298        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                             | -                  | -              | -              | -                                             | -                  | -                    | -                                                                            | -                                          | -              | -                          | -                  | -                |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                       | <b>1,053.558</b>   | <b>33.992</b>  | <b>69.764</b>  | <b>113.885</b>                                | <b>0.000</b>       | <b>113.885</b>       | <b>92.150</b>                                                                | <b>21.536</b>                              | <b>31.279</b>  | <b>19.072</b>              | <b>73.062</b>      | <b>1,508.298</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                     |                    |                |                |                                               |                    |                      |                                                                              |                                            |                |                            |                    |                  |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                          | -                  | 0.040          | 0.126          | 0.231                                         | -                  | 0.231                | 0.159                                                                        | -                                          | -              | -                          | -                  | 0.556            |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                      | -                  | -              | -              | -                                             | -                  | -                    | -                                                                            | -                                          | -              | -                          | -                  | -                |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                                            | -                                          | -              | -                          | -                  | -                |

**Description:**

The Navy Multiband Terminal (NMT) System provides funds for procurement of ship, submarine, and shore protected and wideband Military Satellite Communications (MILSATCOM) terminals via earth orbiting relay satellites in the Super High Frequency, Ka, and Extremely High Frequency (EHF) bands. The NMT provides warfighters with the assured, jam resistant, secure SATCOM for message traffic, data transfer and secure voice communications. These procurements are scheduled to meet the satellite communications requirements established by the Chief of Naval Operations in the Fleet Communications Planning and Programming documents.

NAVY MULTIBAND TERMINAL (NMT - NS108): The NMT program is the next generation maritime military satellite communications terminal. The NMT Program is the required Navy component to the Advanced Extremely High Frequency (AEHF) Program for enhancing protected and survivable satellite communications to Naval forces. NMT multiband communication capabilities will communicate two way Ka-Band on Wideband Global SATCOM (WGS) and shipboard and submarine terminals to communicate with X-Band using the Defense Satellite Communications System and WGS. NMT is compatible with today's Navy Low Data Rate/Medium Data Rate terminals, X-Band terminals and will sustain the MILSATCOM architecture by providing connectivity across the spectrum of mission areas, to include land, air and naval warfare, special operations, strategic nuclear operations, strategic defense, theater missile defense, and space operations and intelligence. The NMT system will replenish and improve on the capabilities of both the Military Strategic and Tactical Relay System (MILSTAR) and WGS system by equipping the warfighters with the assured, jam resistant, secure communications as described in the Operational Requirements Document (Wideband Gapfiller System ORD, AFSPC ORD 004-99, May 3, 2000) for the joint AEHF Satellite Communications and WGS System.

The NMT protected system AN/WSC-9 V (Variant) is comprised of three configurations for ships, submarines and shore sites known as Communication Groups. Terminal Communication Groups will integrate protected and wideband signal processing to multiband Antenna Groups. The Antenna Groups align to the specific Terminal Variant for ship, submarine and shore platforms and provides the SATCOM capabilities known as Q/Ka and X/Ka assigned to platforms. NMT includes the Advanced Time Division Multiple Access (TDMA) Interface Processor (IP) and supports increased data transfers for the Automated Digital Network System (ADNS) router architecture supporting improved Quality of Service (QoS) capability, smaller form factor and easier integration into operational environments, further supporting network user access to protected MILSATCOM connectivity. Technical refresh of modems and the associated architectures will directly support Assured Command and Control (AC2) posture, SATCOM reliability, space resiliency via band diversity and redundancy. AC2 modems enable the use of Wideband Global Satellite (WGS) X-Band (ship/submarine transmit and receive) and Ka-band (shore receive and transmit) resources to maintain link connectivity to provide assured access to mission critical communications in jamming environments.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                 |  |                                        | Date: February 2018                                                   |                                     |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 13: Satellite Communications |  |                                        | P-1 Line Item Number / Title:<br>3216 / Navy Multiband Terminal (NMT) |                                     |  |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                          |  | Program Elements for Code B Items: N/A |                                                                       | Other Related Program Elements: N/A |  |
| Line Item MDAP/MAIS Code: 290                                                                                                                                              |  |                                        |                                                                       |                                     |  |

| Exhibits Schedule |                                                       |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|-------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-3a              | 1 / 3216 Navy Multiband Terminal (NMT) - Afloat (TBD) |             |       |                | - / 743.900                           | - / 12.249                            | - / 40.302                            | - / 62.366                            | - / 0.000                             | - / 62.366                            |
| P-3a              | 2 / 3216 Navy Multiband Terminal (NMT) - Ashore (TBD) |             |       |                | - / 110.695                           | - / 1.533                             | - / 4.488                             | - / 10.035                            | - / 0.000                             | - / 10.035                            |
| P-3a              | 3 / X/Ka Backfits (TBD)                               |             |       |                | - / 137.385                           | - / 3.907                             | - / 2.842                             | - / 1.738                             | - / 0.000                             | - / 1.738                             |
| P-3a              | 4 / NMT Ashore Antennas (TBD)                         |             |       |                | - / 14.581                            | - / 0.715                             | - / 2.872                             | - / 3.942                             | - / 0.000                             | - / 3.942                             |
| P-3a              | 5 / ATIP (TBD)                                        |             |       |                | - / 46.997                            | - / 15.588                            | - / 7.746                             | - / 9.309                             | - / 0.000                             | - / 9.309                             |
| P-3a              | 6 / Assured C2 Modems (TBD)                           |             |       |                | - / 0.000                             | - / 0.000                             | - / 11.514                            | - / 26.495                            | - / 0.000                             | - / 26.495                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                 |             |       |                | - / 1,053.558                         | - / 33.992                            | - / 69.764                            | - / 113.885                           | - / 0.000                             | - / 113.885                           |
| Exhibits Schedule |                                                       |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
| Exhibit Type      | Title*                                                | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-3a              | 1 / 3216 Navy Multiband Terminal (NMT) - Afloat (TBD) |             |       |                | - / 61.118                            | - / 13.365                            | - / 15.079                            | - / 15.176                            | - / 72.496                            | - / 1,036.051                         |
| P-3a              | 2 / 3216 Navy Multiband Terminal (NMT) - Ashore (TBD) |             |       |                | - / 17.723                            | - / 0.392                             | - / 7.901                             | - / 0.000                             | - / 0.000                             | - / 152.767                           |
| P-3a              | 3 / X/Ka Backfits (TBD)                               |             |       |                | - / 0.000                             | - / 0.000                             | - / 1.791                             | - / 0.000                             | - / 0.000                             | - / 147.663                           |
| P-3a              | 4 / NMT Ashore Antennas (TBD)                         |             |       |                | - / 0.000                             | - / 0.000                             | - / 4.411                             | - / 3.664                             | - / 0.000                             | - / 30.185                            |
| P-3a              | 5 / ATIP (TBD)                                        |             |       |                | - / 0.845                             | - / 1.886                             | - / 2.097                             | - / 0.232                             | - / 0.566                             | - / 85.266                            |
| P-3a              | 6 / Assured C2 Modems (TBD)                           |             |       |                | - / 12.464                            | - / 5.893                             | - / 0.000                             | - / 0.000                             | - / 0.000                             | - / 56.366                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                 |             |       |                | - / 92.150                            | - / 21.536                            | - / 31.279                            | - / 19.072                            | - / 73.062                            | - / 1,508.298                         |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

**Justification:**

This exhibit has been updated to include more refined cost estimates for the fielding of Assured Command and Control (AC2) modems and Advanced Time Division Multiple Access Interface Processor (ATIP) and for fact of life changes such as installation availability shifts. The FY19 funding increase provides for the procurement and installation of NMT terminals, AC2 modems, ATIPS, Ashore antennas and X/Ka Back-Fits. Specifically, the FY19 funding request provides for the procurement of 6 NMT terminals and the installation of 15 NMT terminals to align with earliest remaining installation availabilities.

As the program nears Full Operational Capability (FOC), the hardware being procured supports specific ship platform variants. Should an installation slip, the hardware for that platform cannot necessarily be aligned to a different platform creating an appearance of ahead of need for prior year procurements.

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|-------------------------------------------------------------------------------------------|--------------------|------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                |                |                                                                              |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                                |                    |                  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / 3216 Navy Multiband Terminal (NMT)<br>- Afloat |                    |                  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                |                |                                                                              |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                           |                    |                  |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                            | <b>To Complete</b> | <b>Total</b>     |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 743.900            | 12.249         | 40.302         | 62.366                                                                       | 0.000              | 62.366               | 61.118                 | 13.365         | 15.079         | 15.176                                                                                    | 72.496             | 1,036.051        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 743.900            | 12.249         | 40.302         | 62.366                                                                       | 0.000              | 62.366               | 61.118                 | 13.365         | 15.079         | 15.176                                                                                    | 72.496             | 1,036.051        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>743.900</b>     | <b>12.249</b>  | <b>40.302</b>  | <b>62.366</b>                                                                | <b>0.000</b>       | <b>62.366</b>        | <b>61.118</b>          | <b>13.365</b>  | <b>15.079</b>  | <b>15.176</b>                                                                             | <b>72.496</b>      | <b>1,036.051</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                |                |                                                                              |                    |                      |                        |                |                |                                                                                           |                    |                  |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                            | -                  | -                    | -                      | -              | -              | -                                                                                         | -                  | -                |
| <p><b>Description:</b><br/>         (Afloat Ship) (Afloat Sub): Provides jam resistant, low probability of interception and detection for protected extended data rate communications with Advanced Extremely High Frequency (AEHF) capability.</p> <p>The FY19 request provides for the procurement of 4 NMT shipboard terminal and the installation of 12 NMT shipboard terminals to align with earliest remaining installation availabilities. Budget updates also include the breakout of Integration, Assembly and Test (IA&amp;T) and System Operational Verification Test (SOVT) costs. IA&amp;T efforts are performed once terminals and antennas are delivered from Raytheon Production Facilities to the government site SSC Atlantic, Charleston SC. SSC Atlantic serves as the lead integrator and performs Pre-Installation, Test and Check-Out (PITCO) of the terminals and antennas required for NMT ship and submarine afloat platforms. SOVT efforts are performed by SSC Atlantic, Charleston, SC and SSC Pacific, San Diego, CA and validate the NMT system is operational post installation on afloat platforms.</p> |                    |                |                |                                                                              |                    |                      |                        |                |                |                                                                                           |                    |                  |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                       |                                |                                |                                | Date: February 2018                                                                |                                |                                |                                |                                |               |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 13 |                                |                                |                                | P-1 Line Item Number / Title:<br>3216 / Navy Multiband Terminal (NMT) |                                |                                |                                | Modification Number / Title:<br>1 / 3216 Navy Multiband Terminal (NMT)<br>- Afloat |                                |                                |                                |                                |               |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                       |                                |                                | MDAP/MAIS Code:                |                                                                                    |                                |                                |                                |                                |               |
| Models of Systems Affected: Ships, submarines                             |                                |                                | Modification Type: TBD         |                                                                       |                                |                                |                                | Related RDT&E PEs: 0303109N                                                        |                                |                                |                                |                                |               |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                          | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                            | FY 2022                        | FY 2023                        | To Complete                    | Total                          |               |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |               |
| Procurement                                                               |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Afloat     |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| B Kits                                                                    |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| Recurring                                                                 |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| 1.1.1) Afloat Ship - NonOrganic <sup>(1)</sup>                            |                                | 118 / 379.712                  | - / -                          | 1 / 8.179                                                             | 4 / 27.395                     | - / -                          | 4 / 27.395                     | 7 / 37.380                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | 130 / 452.666 |
| 1.1.2) Afloat Sub - NonOrganic                                            |                                | 67 / 61.109                    | 2 / 2.985                      | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | 69 / 64.094   |
| Subtotal: Recurring                                                       |                                | - / 440.821                    | - / 2.985                      | - / 8.179                                                             | - / 27.395                     | - / -                          | - / 27.395                     | - / 37.380                                                                         | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 516.760   |
| Subtotal: 3216 Navy Multiband Terminal (NMT) - Afloat                     |                                | 185 / 440.821                  | 2 / 2.985                      | 1 / 8.179                                                             | 4 / 27.395                     | - / -                          | 4 / 27.395                     | 7 / 37.380                                                                         | - / -                          | - / -                          | - / -                          | - / -                          | 199 / 516.760 |
| Subtotal: Procurement, All Modification Items                             |                                | - / 440.821                    | - / 2.985                      | - / 8.179                                                             | - / 27.395                     | - / -                          | - / 27.395                     | - / 37.380                                                                         | - / -                          | - / -                          | - / -                          | - / 0.000                      | - / 516.760   |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| 2.1) NMT Integration, Assembly & Test (IA&T)                              |                                | - / 2.748                      | - / 2.263                      | - / 0.738                                                             | - / 0.125                      | - / -                          | - / 0.125                      | - / 0.512                                                                          | - / 1.175                      | - / -                          | - / -                          | - / -                          | - / 7.561     |
| 2.2) Production Support - Ship                                            |                                | - / 17.522                     | - / 0.029                      | - / 0.491                                                             | - / 1.644                      | - / -                          | - / 1.644                      | - / 2.243                                                                          | - / -                          | - / -                          | - / -                          | - / -                          | - / 21.929    |
| 2.3) Production Support - Sub                                             |                                | - / 3.663                      | - / 0.315                      | - / -                                                                 | - / -                          | - / -                          | - / -                          | - / -                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | - / 3.978     |
| 2.4) Other DSA - Ship                                                     |                                | - / 30.073                     | - / 1.532                      | - / 3.491                                                             | - / 3.041                      | - / -                          | - / 3.041                      | - / 1.574                                                                          | - / 0.857                      | - / 0.132                      | - / 0.194                      | - / 0.574                      | - / 41.468    |
| 2.5) Other DSA - Sub                                                      |                                | - / 7.096                      | - / 0.188                      | - / 0.314                                                             | - / 0.228                      | - / -                          | - / 0.228                      | - / -                                                                              | - / -                          | - / -                          | - / -                          | - / -                          | - / 7.826     |
| 2.6) NMT System Operational Verification Test (SOVT)                      |                                | - / 2.108                      | - / 2.976                      | - / 1.258                                                             | - / 1.112                      | - / -                          | - / 1.112                      | - / 0.873                                                                          | - / 0.712                      | - / 0.454                      | - / -                          | - / 0.472                      | - / 9.965     |
| Subtotal: Support                                                         |                                | - / 63.210                     | - / 7.303                      | - / 6.292                                                             | - / 6.150                      | - / -                          | - / 6.150                      | - / 5.202                                                                          | - / 2.744                      | - / 0.586                      | - / 0.194                      | - / 1.046                      | - / 92.727    |
| Installation                                                              |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Afloat     |                                | - / 239.869                    | - / 1.961                      | - / 25.831                                                            | - / 28.821                     | - / 0.000                      | - / 28.821                     | - / 18.536                                                                         | - / 10.621                     | - / 2.053                      | - / 4.927                      | - / 11.874                     | - / 344.493   |
| Subtotal: Installation                                                    |                                | - / 239.869                    | - / 1.961                      | - / 25.831                                                            | - / 28.821                     | - / -                          | - / 28.821                     | - / 18.536                                                                         | - / 10.621                     | - / 2.053                      | - / 4.927                      | - / 11.874                     | - / 344.493   |
| Total                                                                     |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |
| Total Cost (Procurement + Support + Installation)                         |                                | 743.900                        | 12.249                         | 40.302                                                                | 62.366                         | 0.000                          | 62.366                         | 61.118                                                                             | 13.365                         | 15.079                         | 15.176                         | 72.496                         | 1,036.051     |
|                                                                           |                                |                                |                                |                                                                       |                                |                                |                                |                                                                                    |                                |                                |                                |                                |               |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|----------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                   |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |           |                                |           |                                |                                        |                                |           |                                |           | <b>Modification Number / Title:</b><br>1 / 3216 Navy Multiband Terminal (NMT)<br>- Afloat |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                 |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> 3216 Navy Multiband Terminal (NMT) - Afloat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Manufacturer Location: Marlborough, MA |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Production Leadtime (in Months): 15    |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                        |                                |           | <b>FY 2021</b>                 |           |                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Jan 2017                       |           |                                |           | Jan 2018                       |           |                                |           | Jan 2019                                                                     |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Apr 2018                       |           |                                |           | Apr 2019                       |           |                                |           | Apr 2020                                                                     |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: Navy Multiband Terminal (NMT) - Afloat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                           |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                        | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                            |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | 154 / 239.869                  |           | 4 / 1.961                      |           | 14 / 25.831                    |           | 9 / 24.146                     |           | 0 / 0.000                                                                    |           | 9 / 24.146                     |           | 2 / 6.150                      |                                        | 1 / 3.540                      |           | - / -                          |           | - / -                                                                                     |           | 1 / 2.969                      |           | 185 / 304.466                  |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | 2 / 0.869                      |           | 0 / 0.000                                                                    |           | 2 / 0.869                      |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 2 / 0.869                      |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 3.806                      |           | 0 / 0.000                                                                    |           | 1 / 3.806                      |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 1 / 3.806                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | 4 / 12.386                     |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 4 / 12.386                     |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | 2 / 7.081                      |           | 1 / 2.053                      |           | 1 / 4.927                                                                                 |           | 3 / 8.905                      |           | 7 / 22.966                     |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | 154 / 239.869                  |           | 4 / 1.961                      |           | 14 / 25.831                    |           | 12 / 28.821                    |           | 0 / 0.000                                                                    |           | 12 / 28.821                    |           | 6 / 18.536                     |                                        | 3 / 10.621                     |           | 1 / 2.053                      |           | 1 / 4.927                                                                                 |           | 4 / 11.874                     |           | 199 / 344.493                  |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                        |                                |           | <b>FY 2021</b>                 |           |                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                    | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                              | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                 | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 140        | 7                              | 2         | 5                              | 2         | 2                              | 6         | 1                              | 7         | -                                                                            | 7         | 5                              | -         | -                              | 1                                      | -                              | 5         | -                              | -         | 1                                                                                         | 2         | -                              | -         | 1                              | -         | -              | -         | -         | 1         | 4         | 199        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 135        | 5                              | 7         | 2                              | 5         | 2                              | 2         | 6                              | 1         | 7                                                                            | -         | 7                              | 5         | -                              | -                                      | 1                              | -         | 5                              | -         | -                                                                                         | 1         | 2                              | -         | -                              | 1         | -              | -         | -         | -         | 5         | 199        |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <sup>(1)</sup> 1. FY19 request provides for the procurement and installation of NMT afloat terminals and reflects current Raytheon contract pricing. Integration, Assembly and Test (IA&T) and System Operational Verification Test (SOVT) engineering services are required to deliver and install the NMT Terminal System. 2. FY19-FY23 continues the installation of NMT Terminals. Prior Year (PY) procurements installed in FY19 align to specific ship and submarine NMT configurations. NMT scheduled installations are dependent on limited ship and submarine availabilities as the program nears Full Operational Capability (FOC). |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                              | <b>Date:</b> February 2018                                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) | <b>Modification Number / Title:</b><br>1 / 3216 Navy Multiband Terminal (NMT)<br>- Afloat |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                              | <b>MDAP/MAIS Code:</b>                                                                    |
| <p>Installation costs are based on current program office estimates. 3. IA&amp;T costs are budgeted in the year of the hardware delivery. Procurement Lead Time (PLT) is 15 months to deliver the first terminal. Deliveries continue over a 12-month period with the last delivery occurring 27 months after award. For example, the last terminal delivery from the FY15 prior year buy is scheduled March 2017. 4. The FY19 Shipboard procurement unit cost is lower than the FY18 cost due to the Economic Order Quantity (EOQ) savings. 5. System Operational Verification Test (SOVT) costs are tied to the end of the installation availability. 6. NMT scheduled installations are dependent on limited ship and submarine availabilities as the program nears FOC. Install cost fluctuations are driven by the configuration of the NMT system and the platform type. For example, estimated installation cost for a LHD 1 class (large deck) platform with dual Q/X/Ka capability is approximately three times greater than a DDG 51 class platform (small deck) with the same Q/X/Ka capability. Large deck ships consist of 2 Terminal Communication Groups with 4, 5, or 6 antennas. The antenna mix is dependent on the specific configuration requirement for each ship. For example, Small deck ships consist of 1 Terminal Communication Group with 2, 3, or 4 antennas. There are 13 variants of the NMT and antenna size varies by class (ranging from 54" to 96").</p> |                                                                              |                                                                                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                              |  | <b>Date:</b> February 2018 |  |                                                                                           |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |  |                            |  | <b>Modification Number / Title:</b><br>2 / 3216 Navy Multiband Terminal (NMT)<br>- Ashore |  |  |  |

|                                                         |  |  |  |  |  |                        |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|---------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 110.695     | 1.533   | 4.488   | 10.035       | 0.000       | 10.035        | 17.723  | 0.392   | 7.901   | 0.000   | 0.000       | 152.767 |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 110.695     | 1.533   | 4.488   | 10.035       | 0.000       | 10.035        | 17.723  | 0.392   | 7.901   | 0.000   | 0.000       | 152.767 |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 110.695     | 1.533   | 4.488   | 10.035       | 0.000       | 10.035        | 17.723  | 0.392   | 7.901   | 0.000   | 0.000       | 152.767 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |         |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -       |

**Description:**

The FY19 request provides for the procurement of 2 NMT shore terminals to align with earliest remaining installation availabilities. Budget updates also include the breakout of Integration, Assembly and Test (IA&T) and System Operational Verification Test (SOVT) costs. IA&T efforts are performed once terminals and antennas are delivered from Raytheon Production Facilities to the government site SSC Atlantic, Charleston SC. SSC Atlantic serves as the lead integrator and performs Pre-Installation, Test and Check-Out (PITCO) of the terminals and antennas required for NMT shore platforms. SOVT efforts are performed by SSC Atlantic, Charleston, SC and SSC Pacific, San Diego, CA and validate the NMT system is operational post installation on ashore platforms.

[Ashore] Provides jam resistant, low probability of interception and detection for protected extended rate communications with Advanced Extremely High Frequency (AEHF) capability.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   | <b>Date:</b> February 2018                                                                |                                   |                                   |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |                                   |                                   |                                   | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                   |                                   |                                   |                                        |                                   | <b>Modification Number / Title:</b><br>2 / 3216 Navy Multiband Terminal (NMT)<br>- Ashore |                                   |                                   |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   | <b>MDAP/MAIS Code:</b>                 |                                   |                                                                                           |                                   |                                   |  |
| <b>Models of Systems Affected:</b> Shore stations                                |                                   |                                   |                                   | <b>Modification Type:</b> TBD                                                |                                   |                                   |                                   | <b>Related RDT&amp;E PEs:</b> 0303109N |                                   |                                                                                           |                                   |                                   |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                | <b>FY 2017</b>                    | <b>FY 2018</b>                    | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b>                | <b>FY 2019 Total</b>              | <b>FY 2020</b>                    | <b>FY 2021</b>                         | <b>FY 2022</b>                    | <b>FY 2023</b>                                                                            | <b>To Complete</b>                | <b>Total</b>                      |  |
|                                                                                  | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                            | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)      | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M)                                                         | Qty (Each) /<br>Total Cost (\$ M) | Qty (Each) /<br>Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| <i>Modification Item 1 of 1:</i> 3216 Navy Multiband Terminal (NMT) - Ashore     |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| B Kits                                                                           |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| Recurring                                                                        |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| 1.1.1) Ashore - NonOrganic <sup>(2)</sup>                                        | 32 / 65.804                       | - / -                             | 1 / 3.227                         | 2 / 5.408                                                                    | - / -                             | 2 / 5.408                         | 5 / 12.887                        | - / -                                  | - / -                             | - / -                                                                                     | - / -                             | 40 / 87.326                       |  |
| <i>Subtotal: Recurring</i>                                                       | - / 65.804                        | - / -                             | - / 3.227                         | - / 5.408                                                                    | - / -                             | - / 5.408                         | - / 12.887                        | - / -                                  | - / -                             | - / -                                                                                     | - / 0.000                         | - / 87.326                        |  |
| <i>Subtotal: 3216 Navy Multiband Terminal (NMT) - Ashore</i>                     | 32 / 65.804                       | - / -                             | 1 / 3.227                         | 2 / 5.408                                                                    | - / -                             | 2 / 5.408                         | 5 / 12.887                        | - / -                                  | - / -                             | - / -                                                                                     | - / -                             | 40 / 87.326                       |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 65.804                        | - / -                             | - / 3.227                         | - / 5.408                                                                    | - / -                             | - / 5.408                         | - / 12.887                        | - / -                                  | - / -                             | - / -                                                                                     | - / 0.000                         | - / 87.326                        |  |
| <b>Support (All Modification Items)</b>                                          |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| 2.1) NMT Integration, Assembly & Test (IA&T)                                     | - / 0.687                         | - / 0.476                         | - / -                             | - / 0.125                                                                    | - / -                             | - / 0.125                         | - / 0.256                         | - / 0.392                              | - / -                             | - / -                                                                                     | - / -                             | - / 1.936                         |  |
| 2.2) Production Support - Ashore                                                 | - / 2.929                         | - / 0.029                         | - / 0.194                         | - / 0.324                                                                    | - / -                             | - / 0.324                         | - / 0.773                         | - / -                                  | - / -                             | - / -                                                                                     | - / -                             | - / 4.249                         |  |
| 2.3) Other DSA - Ashore                                                          | - / 0.397                         | - / 0.397                         | - / -                             | - / -                                                                        | - / -                             | - / -                             | - / -                             | - / -                                  | - / -                             | - / -                                                                                     | - / -                             | - / 0.794                         |  |
| 2.4) NMT System Operational Verification Test (SOVT)                             | - / 0.650                         | - / 0.631                         | - / 0.084                         | - / 0.171                                                                    | - / -                             | - / 0.171                         | - / 0.262                         | - / -                                  | - / 0.454                         | - / -                                                                                     | - / -                             | - / 2.252                         |  |
| <i>Subtotal: Support</i>                                                         | - / 4.663                         | - / 1.533                         | - / 0.278                         | - / 0.620                                                                    | - / -                             | - / 0.620                         | - / 1.291                         | - / 0.392                              | - / 0.454                         | - / -                                                                                     | - / 0.000                         | - / 9.231                         |  |
| <b>Installation</b>                                                              |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| <i>Modification Item 1 of 1:</i> 3216 Navy Multiband Terminal (NMT) - Ashore     | - / 40.228                        | - / 0.000                         | - / 0.983                         | - / 4.007                                                                    | - / 0.000                         | - / 4.007                         | - / 3.545                         | - / 0.000                              | - / 7.447                         | - / 0.000                                                                                 | - / 0.000                         | - / 56.210                        |  |
| <i>Subtotal: Installation</i>                                                    | - / 40.228                        | - / -                             | - / 0.983                         | - / 4.007                                                                    | - / -                             | - / 4.007                         | - / 3.545                         | - / -                                  | - / 7.447                         | - / -                                                                                     | - / 0.000                         | - / 56.210                        |  |
| <b>Total</b>                                                                     |                                   |                                   |                                   |                                                                              |                                   |                                   |                                   |                                        |                                   |                                                                                           |                                   |                                   |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>110.695</b>                    | <b>1.533</b>                      | <b>4.488</b>                      | <b>10.035</b>                                                                | <b>0.000</b>                      | <b>10.035</b>                     | <b>17.723</b>                     | <b>0.392</b>                           | <b>7.901</b>                      | <b>0.000</b>                                                                              | <b>0.000</b>                      | <b>152.767</b>                    |  |



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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|----------------------------------------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                   |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |           |                                |           |                                |                                        |                                |           |                                |           | <b>Modification Number / Title:</b><br>2 / 3216 Navy Multiband Terminal (NMT)<br>- Ashore |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | <b>MDAP/MAIS Code:</b>                 |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> 3216 Navy Multiband Terminal (NMT) - Ashore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: Raytheon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Manufacturer Location: Marlborough, MA |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Production Leadtime (in Months): 15    |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                        |                                |           | <b>FY 2021</b>                 |           |                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | Jan 2017                       |           |                                |           | Jan 2018                       |           |                                |           | Jan 2019                                                                     |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | Apr 2018                       |           |                                |           | Apr 2019                       |           |                                |           | Apr 2020                                                                     |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Method:: Installation Name: Navy Multiband Terminal (NMT) - Ashore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                           |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                        | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                                            |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                        | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                                            |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | 27 / 40.228                    |           | - / -                          |           | 1 / 0.983                      |           | 2 / 2.671                      |           | 0 / 0.000                                                                    |           | 2 / 2.671                      |           | - / -                          |                                        | - / -                          |           | 2 / 2.128                      |           | - / -                                                                                     |           | 0 / 0.000                      |           | 32 / 46.010                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | 1 / 1.336                      |           | 0 / 0.000                                                                    |           | 1 / 1.336                      |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 1 / 1.336                      |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | 2 / 3.545                      |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | 0 / 0.000                      |           | 2 / 3.545                      |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | 5 / 5.319                      |           | - / -                                                                                     |           | 0 / 0.000                      |           | 5 / 5.319                      |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                        | - / -                          |           | - / -                          |           | - / -                                                                                     |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | 27 / 40.228                    |           | - / -                          |           | 1 / 0.983                      |           | 3 / 4.007                      |           | 0 / 0.000                                                                    |           | 3 / 4.007                      |           | 2 / 3.545                      |                                        | - / -                          |           | 7 / 7.447                      |           | - / -                                                                                     |           | 0 / 0.000                      |           | 40 / 56.210                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                        |                                |           | <b>FY 2021</b>                 |           |                                                                                           |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                    | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                              | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                                                 | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 23         | -                              | -         | -                              | 2         | 2                              | -         | -                              | 1         | -                                                                            | -         | 2                              | 1         | -                              | -                                      | 2                              | -         | -                              | -         | -                                                                                         | -         | -                              | 2         | 3                              | 2         | -              | -         | -         | -         | -         | 40         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 23         | -                              | -         | -                              | -         | 2                              | 2         | -                              | -         | 1                                                                            | -         | -                              | 2         | 1                              | -                                      | -                              | 2         | -                              | -         | -                                                                                         | -         | -                              | -         | 2                              | 3         | 2              | -         | -         | -         | -         | 40         |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |
| <sup>(2)</sup> 1. FY19 request provides for the procurement and installation of NMT shore terminals and reflects current Raytheon contract pricing. Integration, Assembly and Test (IA&T) and System Operational Verification Test (SOVT) engineering services are required to deliver and install the NMT Terminal System. 2.FY19-FY23 continues the installation of NMT Terminals. Installation costs are based on current program office estimates. 3. IA&T costs are budgeted in the year of the hardware delivery. Procurement Lead Time (PLT) is 15 months to deliver the first terminal. Deliveries continue over a 12-month period |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                        |                                |           |                                |           |                                                                                           |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                          |                                                                              | <b>Date:</b> February 2018                                                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                    | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) | <b>Modification Number / Title:</b><br>2 / 3216 Navy Multiband Terminal (NMT)<br>- Ashore |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                             |                                                                              | <b>MDAP/MAIS Code:</b>                                                                    |
| <p>with the last delivery occurring 27 months after award. For example, the last terminal delivery from the FY15 prior year buy is scheduled March 2017. 4. The FY19 Shore procurement unit cost is lower than the FY18 cost due to the Economic Order Quantity (EOQ) savings. 5. System Operational Verification Test (SOVT) costs are tied to the end of the shore installation availability.</p> |                                                                              |                                                                                           |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                              | <b>Date:</b> February 2018                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) | <b>Modification Number / Title:</b><br>3 / X/Ka Backfits |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |         |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|---------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total   |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 137.385     | 3.907   | 2.842   | 1.738        | 0.000       | 1.738           | 0.000   | 0.000   | 1.791   | 0.000   | 0.000       | 147.663 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 137.385     | 3.907   | 2.842   | 1.738        | 0.000       | 1.738           | 0.000   | 0.000   | 1.791   | 0.000   | 0.000       | 147.663 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Total Obligation Authority (\$ in Millions)                                                                                            | 137.385     | 3.907   | 2.842   | 1.738        | 0.000       | 1.738           | 0.000   | 0.000   | 1.791   | 0.000   | 0.000       | 147.663 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |         |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -       |

**Description:**

X/Ka Backfits continue to be fielded on platforms with NMT Q/Ka Ship terminals that were procured during Low Rate Initial Production (LRIP) and require the wideband capability that the X/Ka Antenna Group provides. The X/Ka hardware was unavailable during the first two years of production but is required to provide the full Wideband capability to the Fleet.

Budget updates also include the breakout of Integration, Assembly and Test (IA&T) and System Operational Verification Test (SOVT) costs. IA&T efforts are performed once terminals and antennas are delivered from Raytheon Production Facilities to the government site SSC Atlantic, Charleston SC. SSC Atlantic serves as the lead integrator and performs Pre-Installation, Test and Check-Out (PITCO) of the terminals and antennas required for NMT shore platforms. SOVT efforts are performed by SSC Atlantic, Charleston, SC and SSC Pacific, San Diego, CA and validate the NMT system is operational post installation on ashore platforms.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                               |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                       |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>3 / X/Ka Backfits |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                          |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                          |                                       |                                       |                                       | <b>Modification Type:</b> TBD                                                |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                          |                                       |                                       |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                           | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                    | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                               |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> X/Ka Backfits                                   |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| A Kits                                                                           |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| Recurring                                                                        |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| 1.1.1) X/Ka Backfits - NonOrganic <sup>(3)</sup>                                 | 48 / 68.494                           | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | 48 / 68.494                           |  |
| <i>Subtotal: Recurring</i>                                                       | - / 68.494                            | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / 0.000                             | - / 68.494                            |  |
| <i>Subtotal: X/Ka Backfits</i>                                                   | 48 / 68.494                           | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | 48 / 68.494                           |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 68.494                            | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / 0.000                             | - / 68.494                            |  |
| <b>Support (All Modification Items)</b>                                          |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| 2.1) NMT Integration, Assembly & Test (IA&T)                                     | - / 1.030                             | - / 0.357                             | - / 0.492                             | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                                    | - / -                                 | - / 1.879                             |  |
| 2.2) NMT System Operational Verification Test (SOVT)                             | - / 1.171                             | - / 1.056                             | - / 0.419                             | - / 0.086                                                                    | - / -                                 | - / 0.086                             | - / -                                 | - / -                                 | - / 0.091                             | - / -                                                    | - / -                                 | - / 2.823                             |  |
| <i>Subtotal: Support</i>                                                         | - / 2.201                             | - / 1.413                             | - / 0.911                             | - / 0.086                                                                    | - / -                                 | - / 0.086                             | - / -                                 | - / -                                 | - / 0.091                             | - / -                                                    | - / 0.000                             | - / 4.702                             |  |
| <b>Installation</b>                                                              |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> X/Ka Backfits                                   | - / 66.690                            | - / 2.494                             | - / 1.931                             | - / 1.652                                                                    | - / 0.000                             | - / 1.652                             | - / 0.000                             | - / 0.000                             | - / 1.700                             | - / 0.000                                                | - / 0.000                             | - / 74.467                            |  |
| <i>Subtotal: Installation</i>                                                    | - / 66.690                            | - / 2.494                             | - / 1.931                             | - / 1.652                                                                    | - / -                                 | - / 1.652                             | - / -                                 | - / -                                 | - / 1.700                             | - / -                                                    | - / 0.000                             | - / 74.467                            |  |
| <b>Total</b>                                                                     |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                       |                                                          |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>137.385</b>                        | <b>3.907</b>                          | <b>2.842</b>                          | <b>1.738</b>                                                                 | <b>0.000</b>                          | <b>1.738</b>                          | <b>0.000</b>                          | <b>0.000</b>                          | <b>1.791</b>                          | <b>0.000</b>                                             | <b>0.000</b>                          | <b>147.663</b>                        |  |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|----------------------------------------------------------|-----------|----------------|----------------|-----------|----------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |                                |                                |                                                                              |                                |                                |                                |                                | <b>Date:</b> February 2018     |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                |                                |                                |                                |                                |                                |                                |                                |                | <b>Modification Number / Title:</b><br>3 / X/Ka Backfits |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                | <b>MDAP/MAIS Code:</b>                                   |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> X/Ka Backfits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Manufacturer Name: RAYTHEON <sup>(4)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                | Manufacturer Location: Marlborough                       |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                | Production Leadtime <i>(in Months)</i> : 15              |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | <b>FY 2017</b>                 |                                |                                | <b>FY 2018</b>                                                               |                                |                                | <b>FY 2019</b>                 |                                |                                | <b>FY 2020</b>                 |                                |                                | <b>FY 2021</b> |                                                          |           | <b>FY 2022</b> |                |           | <b>FY 2023</b> |           |                |           |           |           |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: X/Ka Backfits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | 44 / 66.690                    | 1 / 2.494                      | 1 / 1.931                      | 1 / 1.652                                                                    | 0 / 0.000                      | 1 / 1.652                      | - / -                          | - / -                          | 1 / 1.700                      | - / -                          | 0 / 0.000                      | 48 / 74.467                    |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | 44 / 66.690                    | 1 / 2.494                      | 1 / 1.931                      | 1 / 1.652                                                                    | 0 / 0.000                      | 1 / 1.652                      | - / -                          | - / -                          | 1 / 1.700                      | - / -                          | 0 / 0.000                      | 48 / 74.467                    |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                                                              | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                 |                                |                                |                                | <b>FY 2020</b> |                                                          |           |                | <b>FY 2021</b> |           |                |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                                    | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 35         | 4                              | 2                              | 3                              | -                                                                            | 1                              | -                              | -                              | -                              | 1                              | 1                              | -                              | -                              | -              | -                                                        | -         | -              | -              | -         | -              | -         | -              | -         | 1         | -         | -              | -         | -         | -         | -         | 48         |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 34         | 1                              | 4                              | 2                              | 3                                                                            | -                              | 1                              | -                              | -                              | -                              | 1                              | 1                              | -                              | -              | -                                                        | -         | -              | -              | -         | -              | -         | -              | -         | -         | 1         | -              | -         | -         | -         | -         | 48         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |
| <b>Footnotes:</b><br><sup>(3)</sup> 1. Fielded platforms with the Q/Ka configuration require an X/Ka backfit, which has additional costs dependent on platform (large vs small deck). IA&T costs are budgeted in the year of the hardware delivery. Procurement Lead Time (PLT) is 15 months to deliver the first terminal. Deliveries continue over a 12-month period with the last delivery occurring 27 months after award. For example, the last terminal delivery from the FY15 prior year buy is scheduled March 2017. NMT scheduled installations are dependent on limited ship availabilities as the program nears FOC.<br><sup>(4)</sup> Procurements completed in prior years. |            |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                |                                |                                |                |                                                          |           |                |                |           |                |           |                |           |           |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                              | <b>Date:</b> February 2018                                     |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) | <b>Modification Number / Title:</b><br>4 / NMT Ashore Antennas |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 14.581      | 0.715   | 2.872   | 3.942        | 0.000       | 3.942           | 0.000   | 0.000   | 4.411   | 3.664   | 0.000       | 30.185 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 14.581      | 0.715   | 2.872   | 3.942        | 0.000       | 3.942           | 0.000   | 0.000   | 4.411   | 3.664   | 0.000       | 30.185 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 14.581      | 0.715   | 2.872   | 3.942        | 0.000       | 3.942           | 0.000   | 0.000   | 4.411   | 3.664   | 0.000       | 30.185 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

The original NMT acquisition strategy was to re-use legacy FOT Shore Antennas that would be refurbished. However, antennas coming in for overhaul were in worse than expected condition; all required major overhaul parts including bearings, cable assemblies, motors, slip rings, and rotary joints. Refurbished FOT antennas posed long-term supportability problems due to obsolescence. Therefore, in Prior Year procurements (PY FY15), the program office procured 17 Shore antennas to provide optimal capability to the fleet.

PB19 NMT budget includes the breakout of Integration, Assembly and Test (IA&T) efforts which are performed once the Ashore Antennas are delivered from Raytheon Production Facilities to the government site at SSC Atlantic, Charleston SC. SSC Atlantic serves as the lead integrator and performs Pre-Installation, Test and Check-Out (PITCO) of the antennas required for NMT shore platforms. NMT Installations include System Operational Verification Test (SOVT) which are performed by SSC Atlantic, Charleston, SC and SSC Pacific, San Diego, CA and validate the NMT antenna is operational post installation on shore sites.

[NMT Ashore Antennas] Shore Antennas comprise of a Q Band configuration to provide SATCOM capabilities.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                     |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                |                                |                                |                                |                                | <b>Modification Number / Title:</b><br>4 / NMT Ashore Antennas |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                              |                                |                                |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                |                                |                                |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                          |                                |                                |                                | <b>Modification Type:</b> TBD                                                |                                |                                |                                | <b>Related RDT&amp;E PEs:</b>  |                                |                                                                |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                          | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                 | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> NMT Ashore Antennas                             |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| A Kits                                                                           |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| 1.1.1) NMT Ashore Antennas - NonOrganic <sup>(5)</sup>                           | 17 / 13.903                    | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                          | - / -                          | 17 / 13.903                    |  |
| <b>Subtotal: Recurring</b>                                                       | - / 13.903                     | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                          | - / 0.000                      | - / 13.903                     |  |
| <b>Subtotal: NMT Ashore Antennas</b>                                             | 17 / 13.903                    | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                          | - / -                          | 17 / 13.903                    |  |
| <b>Subtotal: Procurement, All Modification Items</b>                             | - / 13.903                     | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                          | - / 0.000                      | - / 13.903                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| 2.1) NMT Integration, Assembly & Test (IA&T)                                     | - / -                          | - / 0.715                      | - / 1.353                      | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                          | - / -                          | - / 2.068                      |  |
| 2.2) NMT System Operational Verification Test (SOVT)                             | - / -                          | - / -                          | - / 0.168                      | - / 0.428                                                                    | - / -                          | - / 0.428                      | - / -                          | - / -                          | - / 0.454                      | - / 0.370                                                      | - / -                          | - / 1.420                      |  |
| <b>Subtotal: Support</b>                                                         | - / 0.000                      | - / 0.715                      | - / 1.521                      | - / 0.428                                                                    | - / -                          | - / 0.428                      | - / -                          | - / -                          | - / 0.454                      | - / 0.370                                                      | - / 0.000                      | - / 3.488                      |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| <b>Modification Item 1 of 1:</b> NMT Ashore Antennas                             | - / 0.678                      | - / 0.000                      | - / 1.351                      | - / 3.514                                                                    | - / 0.000                      | - / 3.514                      | - / 0.000                      | - / 0.000                      | - / 3.957                      | - / 3.294                                                      | - / 0.000                      | - / 12.794                     |  |
| <b>Subtotal: Installation</b>                                                    | - / 0.678                      | - / -                          | - / 1.351                      | - / 3.514                                                                    | - / -                          | - / 3.514                      | - / -                          | - / -                          | - / 3.957                      | - / 3.294                                                      | - / 0.000                      | - / 12.794                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                |                                                                |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | 14.581                         | 0.715                          | 2.872                          | 3.942                                                                        | 0.000                          | 3.942                          | 0.000                          | 0.000                          | 4.411                          | 3.664                                                          | 0.000                          | 30.185                         |  |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-------------------------------------|--------------------------------|-----------|--------------------------------|-----------|----------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           | <b>Date:</b> February 2018                                                   |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |           |                                |           |                                |                                     |                                |           |                                |           | <b>Modification Number / Title:</b><br>4 / NMT Ashore Antennas |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | <b>MDAP/MAIS Code:</b>              |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> NMT Ashore Antennas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: RAYTHEON <sup>(6)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Manufacturer Location: Marlborough  |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                | Production Leadtime (in Months): 15 |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: NMT Ashore Antennas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                           |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                     | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                                 |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                 |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | 1 / 0.678                      |           | - / -                          |           | 2 / 1.351                      |           | 5 / 3.514                      |           | 0 / 0.000                                                                    |           | 5 / 3.514                      |           | - / -                          |                                     | - / -                          |           | 5 / 3.957                      |           | 4 / 3.294                                                      |           | 0 / 0.000                      |           | 17 / 12.794                    |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                          |                                     | - / -                          |           | - / -                          |           | - / -                                                          |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | 1 / 0.678                      |           | - / -                          |           | 2 / 1.351                      |           | 5 / 3.514                      |           | 0 / 0.000                                                                    |           | 5 / 3.514                      |           | - / -                          |                                     | - / -                          |           | 5 / 3.957                      |           | 4 / 3.294                                                      |           | 0 / 0.000                      |           | 17 / 12.794                    |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                 |                                     |                                |           | <b>FY 2021</b>                 |           |                                                                |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                    | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b>                           | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1          | -                              | -         | -                              | -         | -                              | -         | 2                              | -         | -                                                                            | -         | -                              | 3         | 2                              | -                                   | -                              | -         | -                              | -         | -                                                              | -         | -                              | -         | -                              | 3         | 2              | -         | 2         | 2         | -         |            |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -          | 1                              | -         | -                              | -         | -                              | -         | -                              | 2         | -                                                                            | -         | -                              | 3         | 2                              | -                                   | -                              | -         | -                              | -         | -                                                              | -         | -                              | -         | -                              | -         | 3              | 2         | -         | 2         | 2         |            |
| <b>Footnotes:</b><br><sup>(5)</sup> 1. FY18-FY23 Ashore Antenna fielding changes are due to program reprioritization to support NMT Ashore site capabilities. 2. FY18 Integration, Assembly and Test (IA&T) engineering services are required for the final delivery of NMT Terminal Antennas procured in prior years. 3. FY18-FY20 System Operational Verification Test (SOVT) costs represent the effort to operationally verify the capability following the completion of the antenna installation at Shore sites.<br><sup>(6)</sup> Procurements completed in prior years. |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                |                                     |                                |           |                                |           |                                                                |           |                                |           |                                |           |                |           |           |           |           |            |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                              | <b>Date:</b> February 2018                      |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) | <b>Modification Number / Title:</b><br>5 / ATIP |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             |               | MDAP/MAIS Code: |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|-----------------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 46.997      | 15.588  | 7.746   | 9.309        | 0.000       | 9.309         | 0.845           | 1.886   | 2.097   | 0.232   | 0.566       | 85.266 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 46.997      | 15.588  | 7.746   | 9.309        | 0.000       | 9.309         | 0.845           | 1.886   | 2.097   | 0.232   | 0.566       | 85.266 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 46.997      | 15.588  | 7.746   | 9.309        | 0.000       | 9.309         | 0.845           | 1.886   | 2.097   | 0.232   | 0.566       | 85.266 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |                 |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -             | -               | -       | -       | -       | -           | -      |

**Description:**

Initial NMT procurements included the Time Division Multiple Access (TDMA) Interface Processor (TIP) pending the development of the Advanced Time Division Multiple Access (TDMA) Interface Processor (IP). Although ATIP is required to receive NMT's full netted communications capability over the Extreme Data Rate (XDR), it also is fielded independently of NMT as a Back-Fit to replace the legacy TIP's from the Fleet thereby improving Cyber Security posture and Reliability of the system. ATIPs require Integration, Assembly and Test (IA&T). IA&T efforts are performed once ATIPS are delivered from COMTECH to the government sites at SSC Pacific, San Diego, CA. SSC Pacific serves as lead integrator and performs Pre-Installation, Test and Check-Out (PITCO) of the modems required for NMT ship and submarine afloat platforms. NMT Installation updates include System Operational Verification Test (SOVT). SOVT efforts are performed by SSC Pacific, San Diego, CA and validate ATIPS are operational post installation on afloat platforms and ashore sites.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                      |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>5 / ATIP |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                 |                                       |                                       |  |
| <b>Models of Systems Affected:</b> [No Model Specified]                          |                                       |                                       |                                       | <b>Modification Type:</b> TBD         |                                                                              |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                 |                                       |                                       |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                           | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                  | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>           | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                               |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> ATIP                                            |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| A Kits                                                                           |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| Recurring                                                                        |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| 1.1.1) Advanced TDMA Interface Processors (ATIP) - NonOrganic <sup>(7)</sup>     | 297 / 28.240                          | 15 / 2.304                            | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                           | - / -                                 | 312 / 30.544                          |  |
| <i>Subtotal: Recurring</i>                                                       | - / 28.240                            | - / 2.304                             | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                           | - / 0.000                             | - / 30.544                            |  |
| <i>Subtotal: ATIP</i>                                                            | 297 / 28.240                          | 15 / 2.304                            | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                           | - / -                                 | 312 / 30.544                          |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 28.240                            | - / 2.304                             | - / -                                 | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                           | - / 0.000                             | - / 30.544                            |  |
| <b>Support (All Modification Items)</b>                                          |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| 2.1) IA&T - ATIP                                                                 | - / -                                 | - / -                                 | - / 1.985                             | - / -                                 | - / -                                                                        | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                           | - / -                                 | - / 1.985                             |  |
| 2.2) SOVT - ATIP                                                                 | - / -                                 | - / -                                 | - / 1.648                             | - / 1.369                             | - / -                                                                        | - / 1.369                             | - / 0.696                             | - / 0.499                             | - / 0.145                             | - / 0.074                                       | - / 0.038                             | - / 4.469                             |  |
| <i>Subtotal: Support</i>                                                         | - / 0.000                             | - / -                                 | - / 3.633                             | - / 1.369                             | - / -                                                                        | - / 1.369                             | - / 0.696                             | - / 0.499                             | - / 0.145                             | - / 0.074                                       | - / 0.038                             | - / 6.454                             |  |
| <b>Installation</b>                                                              |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> ATIP                                            | - / 18.757                            | - / 13.284                            | - / 4.113                             | - / 7.940                             | - / 0.000                                                                    | - / 7.940                             | - / 0.149                             | - / 1.387                             | - / 1.952                             | - / 0.158                                       | - / 0.528                             | - / 48.268                            |  |
| <i>Subtotal: Installation</i>                                                    | - / 18.757                            | - / 13.284                            | - / 4.113                             | - / 7.940                             | - / -                                                                        | - / 7.940                             | - / 0.149                             | - / 1.387                             | - / 1.952                             | - / 0.158                                       | - / 0.528                             | - / 48.268                            |  |
| <b>Total</b>                                                                     |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                 |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>46.997</b>                         | <b>15.588</b>                         | <b>7.746</b>                          | <b>9.309</b>                          | <b>0.000</b>                                                                 | <b>9.309</b>                          | <b>0.845</b>                          | <b>1.886</b>                          | <b>2.097</b>                          | <b>0.232</b>                                    | <b>0.566</b>                          | <b>85.266</b>                         |  |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|------------------------------------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|-------------------------------------------------|-----------|--------------------------------|-----------|--------------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           | <b>Date:</b> February 2018     |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |           |                                |           |                                            |           |                                |           |                                |           | <b>Modification Number / Title:</b><br>5 / ATIP |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           | <b>MDAP/MAIS Code:</b>                     |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> ATIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| Manufacturer Name: COMTECH <sup>(8)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           | Manufacturer Location: Tempe, AZ           |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           | Production Leadtime <i>(in Months)</i> : 3 |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                             |           |                                |           | <b>FY 2021</b>                 |           |                                                 |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | Jan 2017                       |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | Apr 2017                       |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Advanced TDMA Interface Processors (ATIP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Prior Years</b>             |           | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |           | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>                                                           |           | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                             |           | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |           | <b>FY 2023</b>                                  |           | <b>To Complete</b>             |           | <b>Total</b>                   |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                                               |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)             |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M)                  |           | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | 103 / 18.757                   |           | 65 / 13.284                    |           | 26 / 4.113                     |           | 94 / 7.940                     |           | 0 / 0.000                                                                    |           | 94 / 7.940                     |           | 1 / 0.149                                  |           | 8 / 0.770                      |           | - / -                          |           | - / -                                           |           | 0 / 0.000                      |           | 297 / 45.013                   |           |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | 4 / 0.617                      |           | 8 / 1.952                      |           | 1 / 0.158                                       |           | 2 / 0.528                      |           | 15 / 3.255                     |           |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | - / -                          |           | - / -                          |           | - / -                          |           | - / -                          |           | - / -                                                                        |           | - / -                          |           | - / -                                      |           | - / -                          |           | - / -                          |           | - / -                                           |           | - / -                          |           | - / -                          |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | 103 / 18.757                   |           | 65 / 13.284                    |           | 26 / 4.113                     |           | 94 / 7.940                     |           | 0 / 0.000                                                                    |           | 94 / 7.940                     |           | 1 / 0.149                                  |           | 12 / 1.387                     |           | 8 / 1.952                      |           | 1 / 0.158                                       |           | 2 / 0.528                      |           | 312 / 48.268                   |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PYS</b> | <b>FY 2017</b>                 |           |                                |           | <b>FY 2018</b>                 |           |                                |           | <b>FY 2019</b>                                                               |           |                                |           | <b>FY 2020</b>                             |           |                                |           | <b>FY 2021</b>                 |           |                                                 |           | <b>FY 2022</b>                 |           |                                |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                                                    | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                                  | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                                       | <b>Q4</b> | <b>Q1</b>                      | <b>Q2</b> | <b>Q3</b>                      | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 78         | 25                             | -         | 22                             | 22        | 21                             | -         | 13                             | 13        | 24                                                                           | 24        | 23                             | 23        | -                                          | -         | 1                              | -         | -                              | 2         | 5                                               | 5         | -                              | 1         | 4                              | 3         | -              | -         | 1         | -         | 2         | 312        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 53         | 25                             | 25        | -                              | 22        | 22                             | 21        | -                              | 13        | 13                                                                           | 24        | 24                             | 23        | 23                                         | -         | -                              | 1         | -                              | -         | 2                                               | 5         | 5                              | -         | 1                              | 4         | 3              | -         | -         | 1         | 2         | 312        |
| <b>Footnotes:</b><br><sup>(7)</sup> 1. ATIP modem installations will take place during a Window of Opportunity (WOO) availability that includes a 14-day window to perform and complete the installation. 2. The FY19 Qty 94 ATIP planned installs include Qty 18 shipboard ATIP installs, Qty 22 submarine ATIP installs and Qty 54 for 9 Shore sites (6 modems per shore site). FY18-FY23 ATIP installation cost and quantity adjustments reflect updated cost estimates based upon actuals to date for individual configuration types.<br><sup>(8)</sup> ATIP procurements completed in 2017. |            |                                |           |                                |           |                                |           |                                |           |                                                                              |           |                                |           |                                            |           |                                |           |                                |           |                                                 |           |                                |           |                                |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                              | <b>Date:</b> February 2018                                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) | <b>Modification Number / Title:</b><br>6 / Assured C2 Modems |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |        |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|--------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total  |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 0.000   | 11.514  | 26.495       | 0.000       | 26.495          | 12.464  | 5.893   | 0.000   | 0.000   | 0.000       | 56.366 |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 0.000   | 11.514  | 26.495       | 0.000       | 26.495          | 12.464  | 5.893   | 0.000   | 0.000   | 0.000       | 56.366 |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 0.000   | 11.514  | 26.495       | 0.000       | 26.495          | 12.464  | 5.893   | 0.000   | 0.000   | 0.000       | 56.366 |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |        |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -      |

**Description:**

Assured C2 Modems: Beginning in FY18, Modem tech refresh directly supports Assured Command and Control (AC2) posture, SATCOM reliability, space resiliency via band diversity and redundancy for MILSATCOM.

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|----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       | <b>Date:</b> February 2018                                   |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13 |                                       |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                       |                                       |                                       |                                       | <b>Modification Number / Title:</b><br>6 / Assured C2 Modems |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       | <b>MDAP/MAIS Code:</b>                |                                       |                                                              |                                       |                                       |  |
| <b>Models of Systems Affected:</b> Shore Stations, Ships                         |                                       |                                       |                                       | <b>Modification Type:</b> TBD         |                                                                              |                                       |                                       | <b>Related RDT&amp;E PEs:</b>         |                                       |                                                              |                                       |                                       |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                   | <b>FY 2019 OCO</b>                                                           | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                        | <b>FY 2022</b>                        | <b>FY 2023</b>                                               | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                        | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <b>Procurement</b>                                                               |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> Assured C2 Modems                               |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| A Kits                                                                           |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| Recurring                                                                        |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| 1.1.1) Assured C2 Modems - NonOrganic <sup>(9)</sup>                             | - / -                                 | - / -                                 | 112 / 4.211                           | 242 / 9.146                           | - / -                                                                        | 242 / 9.146                           | 90 / 3.260                            | 35 / 1.123                            | - / -                                 | - / -                                                        | - / -                                 | 479 / 17.740                          |  |
| <i>Subtotal: Recurring</i>                                                       | - / 0.000                             | - / -                                 | - / 4.211                             | - / 9.146                             | - / -                                                                        | - / 9.146                             | - / 3.260                             | - / 1.123                             | - / -                                 | - / -                                                        | - / 0.000                             | - / 17.740                            |  |
| <i>Subtotal: Assured C2 Modems</i>                                               | - / -                                 | - / -                                 | 112 / 4.211                           | 242 / 9.146                           | - / -                                                                        | 242 / 9.146                           | 90 / 3.260                            | 35 / 1.123                            | - / -                                 | - / -                                                        | - / -                                 | 479 / 17.740                          |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 0.000                             | - / -                                 | - / 4.211                             | - / 9.146                             | - / -                                                                        | - / 9.146                             | - / 3.260                             | - / 1.123                             | - / -                                 | - / -                                                        | - / 0.000                             | - / 17.740                            |  |
| <b>Support (All Modification Items)</b>                                          |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| 2.1) Production Support - Assured C2 Modems                                      | - / -                                 | - / -                                 | - / 0.253                             | - / 0.549                             | - / -                                                                        | - / 0.549                             | - / 0.196                             | - / 0.067                             | - / -                                 | - / -                                                        | - / -                                 | - / 1.065                             |  |
| 2.2) IA&T - Assured C2 Modems                                                    | - / -                                 | - / -                                 | - / 3.131                             | - / 6.901                             | - / -                                                                        | - / 6.901                             | - / 2.618                             | - / 1.038                             | - / -                                 | - / -                                                        | - / -                                 | - / 13.688                            |  |
| 2.3) SOVT - Assured C2 Modems                                                    | - / -                                 | - / -                                 | - / 0.537                             | - / 1.711                             | - / -                                                                        | - / 1.711                             | - / 1.466                             | - / 1.246                             | - / -                                 | - / -                                                        | - / -                                 | - / 4.960                             |  |
| <i>Subtotal: Support</i>                                                         | - / 0.000                             | - / -                                 | - / 3.921                             | - / 9.161                             | - / -                                                                        | - / 9.161                             | - / 4.280                             | - / 2.351                             | - / -                                 | - / -                                                        | - / 0.000                             | - / 19.713                            |  |
| <b>Installation</b>                                                              |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> Assured C2 Modems                               | - / 0.000                             | - / 0.000                             | - / 3.382                             | - / 8.188                             | - / 0.000                                                                    | - / 8.188                             | - / 4.924                             | - / 2.419                             | - / 0.000                             | - / 0.000                                                    | - / 0.000                             | - / 18.913                            |  |
| <i>Subtotal: Installation</i>                                                    | - / 0.000                             | - / -                                 | - / 3.382                             | - / 8.188                             | - / -                                                                        | - / 8.188                             | - / 4.924                             | - / 2.419                             | - / -                                 | - / -                                                        | - / 0.000                             | - / 18.913                            |  |
| <b>Total</b>                                                                     |                                       |                                       |                                       |                                       |                                                                              |                                       |                                       |                                       |                                       |                                                              |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>0.000</b>                          | <b>0.000</b>                          | <b>11.514</b>                         | <b>26.495</b>                         | <b>0.000</b>                                                                 | <b>26.495</b>                         | <b>12.464</b>                         | <b>5.893</b>                          | <b>0.000</b>                          | <b>0.000</b>                                                 | <b>0.000</b>                          | <b>56.366</b>                         |  |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|------------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|--------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                              | <b>Date:</b> February 2018     |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>3216 / Navy Multiband Terminal (NMT) |                                |           |                                |                                    |                                |           |                                |                |                                | <b>Modification Number / Title:</b><br>6 / Assured C2 Modems |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    | <b>MDAP/MAIS Code:</b>         |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Assured C2 Modems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| Manufacturer Name: TBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                | Manufacturer Location: TBD         |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                | Production Leadtime (in Months): 3 |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                               |                                |           |                                | <b>FY 2020</b>                     |                                |           |                                | <b>FY 2021</b> |                                |                                                              |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                | Jan 2018       |                                |           |                                | Nov 2018                                                                     |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                | Apr 2018       |                                |           |                                | Feb 2019                                                                     |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> [none specified]:: Installation Name: Assured C2 Modems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                              | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                                    | <b>FY 2021</b>                 |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                              | <b>To Complete</b>             |                | <b>Total</b>                   |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                              | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                    | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                              | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |           |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           | - / -     |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | 112 / 3.382                    |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | 0 / 0.000                      |                | 112 / 3.382                    |           |           |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | 242 / 8.188                    |           | 0 / 0.000                      |                                                                              | 242 / 8.188                    |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | 0 / 0.000                      |                | 242 / 8.188                    |           |           |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | 90 / 4.924                     |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | 0 / 0.000                      |                | 90 / 4.924                     |           |           |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | 35 / 2.419                     |           | - / -                          |                | - / -                          |                                                              | 0 / 0.000                      |                | 35 / 2.419                     |           |           |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                              | - / -                          |           | - / -                          |                                    | - / -                          |           | - / -                          |                | - / -                          |                                                              | - / -                          |                | - / -                          |           |           |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | - / -                          | - / -                          |           | 112 / 3.382                    |                | 242 / 8.188                    |           | 0 / 0.000                      |                                                                              | 242 / 8.188                    |           | 90 / 4.924                     |                                    | 35 / 2.419                     |           | - / -                          |                | - / -                          |                                                              | 0 / 0.000                      |                | 479 / 18.913                   |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                               |                                |           |                                | <b>FY 2020</b>                     |                                |           |                                | <b>FY 2021</b> |                                |                                                              |                                | <b>FY 2022</b> |                                |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                    | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                          | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                    | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -          | -                              | -                              | -         | -                              | -              | -                              | 56        | 56                             | -                                                                            | 81                             | 81        | 80                             | -                                  | 30                             | 30        | 30                             | -              | 12                             | 12                                                           | 11                             | -              | -                              | -         | -         | -              | -         | -         | -         | -         | 479        |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -          | -                              | -                              | -         | -                              | -              | -                              | 56        | 56                             | -                                                                            | 81                             | 81        | 80                             | -                                  | 30                             | 30        | 30                             | -              | 12                             | 12                                                           | 11                             | -              | -                              | -         | -         | -              | -         | -         | -         | -         | 479        |
| <b>Footnotes:</b><br><sup>(9)</sup> 1. FY18-FY21 AC2 Modem procurement and installation updates are the results of more refined cost estimates. The AC2 modems will be fielded at 7 DISA shore teleport sites and on 143 ship platforms. Qty 48 modems are required for each DISA shore site for a total of 336 shore modems. FY19 funds the procurement and installation of Qty 50 shipboard platforms and Qty 4 Shore sites (Shore total Qty 192). 2. FY18-FY21 DSA costs were included in previous budget submissions but have since been removed as the AC2 modem installation will be performed as an Engineering Change and do not require a 75%/25% DSA planning structure. 3. Ship Modem installations will take place during a Window of Opportunity (WOO) availability that includes a 8 day window to perform and complete the installation. |            |                                |                                |           |                                |                |                                |           |                                |                                                                              |                                |           |                                |                                    |                                |           |                                |                |                                |                                                              |                                |                |                                |           |           |                |           |           |           |           |            |

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**Exhibit P-40, Budget Line Item Justification:** PB 2019 Navy **Date:** February 2018

|                                                                                                                                                                               |                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 14: Shore Communications | <b>P-1 Line Item Number / Title:</b><br>3302 / Joint Communications Support Element (JCSE) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|

|                                                          |                                               |                                            |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A |
|----------------------------------------------------------|-----------------------------------------------|--------------------------------------------|

**Line Item MDAP/MAIS Code:** N/A

| Resource Summary                                                                                                                              | Prior Years   | FY 2017      | FY 2018      | FY 2019 Base | FY 2019 OCO  | FY 2019 Total | FY 2020      | FY 2021      | FY 2022      | FY 2023      | To Complete       | Total             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------------|-------------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                 | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                            | 19.981        | 4.156        | 4.256        | 4.292        | 0.000        | 4.292         | 4.293        | 4.478        | 4.757        | 4.545        | Continuing        | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                               | 19.981        | 4.156        | 4.256        | 4.292        | 0.000        | 4.292         | 4.293        | 4.478        | 4.757        | 4.545        | Continuing        | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                         | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| <b>Total Obligation Authority (<i>\$ in Millions</i>)</b>                                                                                     | <b>19.981</b> | <b>4.156</b> | <b>4.256</b> | <b>4.292</b> | <b>0.000</b> | <b>4.292</b>  | <b>4.293</b> | <b>4.478</b> | <b>4.757</b> | <b>4.545</b> | <b>Continuing</b> | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i> |               |              |              |              |              |               |              |              |              |              |                   |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                      | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                  | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                      | -             | -            | -            | -            | -            | -             | -            | -            | -            | -            | -                 | -                 |

## Description:

The Joint Communications Support Element (JCSE) Program is responsible for procuring hardware and software to support Defensive Cyber Operations, Transport technologies (narrowband, wideband and protected satellite communications), C4 Architecture (network elements that provide access to the Defense Information Systems Network (DISN) cloud), and C2 On-The-Move (land, air and ground based tactical capabilities) in concert with Strategic Planning Guidance. JCSE's Modernization Program is structured around Combatant Command (CCMD) requirements using emerging technologies. Services formally influence JCSE's acquisition plan through semi-annual program reviews and make recommendations in concert with Major Defense Acquisition Program (MDAP) schedules, ensuring that Service dollars meet Joint Service requirements. The modernization program goals include meeting emerging real-world operational requirements with improved capabilities, smaller footprint, reduced operations and maintenance costs, and seamless integration with the global information grid.

This line funds the Department of the Navy's portion of the JCSE Program. This program is jointly funded by Army, Navy, Marine Corps, and Air Force in support of Joint Tactical Force and Joint Special Operations Task Force Headquarters.

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------|-----------------------------------------------|-----------------------|----------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                 |                                       |                    |                                               |                       |                                              |                                                                                            |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 14: Shore Communications                                                                                                        |                                       |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>3302 / Joint Communications Support Element (JCSE) |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                          |                                       |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                                                 |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                              |                                       |                    |                                               |                       |                                              |                                                                                            |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                          |                                       |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                             | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                               | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                               | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                             | JCS Communications Equipment          |                    |                                               |                       | - / 19.981                                   | - / 4.156                                                                                  | - / 4.256                                    | - / 4.292                                    | - / -                                        | - / 4.292                                    |
| <b>P-40</b>                                                                                                                                                                                                                                                                       | <b>Total Gross/Weapon System Cost</b> |                    |                                               |                       | <b>- / 19.981</b>                            | <b>- / 4.156</b>                                                                           | <b>- / 4.256</b>                             | <b>- / 4.292</b>                             | <b>- / 0.000</b>                             | <b>- / 4.292</b>                             |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</small>                  |                                       |                    |                                               |                       |                                              |                                                                                            |                                              |                                              |                                              |                                              |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                                                                                                             |                                       |                    |                                               |                       |                                              |                                                                                            |                                              |                                              |                                              |                                              |
| <b>Justification:</b><br>FY19 funds the procurement of Communication requirements identified to support personnel and equipment to establish and maintain emergency communications detachments in support of Joint Task Force and Joint Special Operations Task Force Commanders. |                                       |                    |                                               |                       |                                              |                                                                                            |                                              |                                              |                                              |                                              |



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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                  |            |                   |                  |                                                                                     |                   |                  |            |                   |                  |            |                   | Date: February 2018                                     |            |                   |                  |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|-------------------------------------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|---------------------------------------------------------|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 14   |       |                |                  |            |                   |                  | P-1 Line Item Number / Title:<br>3302 / Joint Communications Support Element (JCSE) |                   |                  |            |                   |                  |            |                   | Aggregated Items Title:<br>JCS Communications Equipment |            |                   |                  |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years      |            |                   | FY 2017          |                                                                                     |                   | FY 2018          |            |                   | FY 2019 Base     |            |                   | FY 2019 OCO                                             |            |                   | FY 2019 Total    |            |                   |
|                                                                             |       |                | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each)                                                                          | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K)                                        | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ K) | Qty (Each) | Total Cost (\$ M) |
| 1) Joint Communication Support Element Modernization                        |       |                |                  |            |                   |                  |                                                                                     |                   |                  |            |                   |                  |            |                   |                                                         |            |                   |                  |            |                   |
| 1.1) Joint Communication Support Element Modernization <sup>(1)</sup>       | A     |                | -                | -          | 19.981            | -                | -                                                                                   | 4.156             | -                | -          | 4.256             | -                | -          | 4.292             | -                                                       | -          | -                 | -                | -          | 4.292             |
| Subtotal: 1) Joint Communication Support Element Modernization              |       |                | -                | -          | 19.981            | -                | -                                                                                   | 4.156             | -                | -          | 4.256             | -                | -          | 4.292             | -                                                       | -          | -                 | -                | -          | 4.292             |
| Total                                                                       |       |                | -                | -          | 19.981            | -                | -                                                                                   | 4.156             | -                | -          | 4.256             | -                | -          | 4.292             | -                                                       | -          | -                 | -                | -          | 4.292             |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

**Footnotes:**

<sup>(1)</sup> Quantities are not shown. Quantities and equipment type are determined by the COCOM on an annual basis based on Joint Task Force and Joint Special Operations Task Force operational requirements for critical communications.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                             |                    |                |                                               |                     |                    |                      |                                                                                     |                                                 |                | <b>Date:</b> February 2018 |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment |                    |                |                                               |                     |                    |                      | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                                 |                |                            |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                      |                    |                | <b>Program Elements for Code B Items:</b> N/A |                     |                    |                      |                                                                                     | <b>Other Related Program Elements:</b> 0303140N |                |                            |                    |                   |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                          |                    |                |                                               |                     |                    |                      |                                                                                     |                                                 |                |                            |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b>                                | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                      | <b>FY 2021</b>                                  | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                 | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                   | -                                               | -              | -                          | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                            | 1,591.864          | 92.454         | 89.663                                        | 153.526             | 0.000              | 153.526              | 169.790                                                                             | 167.008                                         | 164.884        | 171.918                    | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                         | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                   | -                                               | -              | -                          | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                               | 1,591.864          | 92.454         | 89.663                                        | 153.526             | 0.000              | 153.526              | 169.790                                                                             | 167.008                                         | 164.884        | 171.918                    | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                         | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                   | -                                               | -              | -                          | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                   | <b>1,591.864</b>   | <b>92.454</b>  | <b>89.663</b>                                 | <b>153.526</b>      | <b>0.000</b>       | <b>153.526</b>       | <b>169.790</b>                                                                      | <b>167.008</b>                                  | <b>164.884</b> | <b>171.918</b>             | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                 |                    |                |                                               |                     |                    |                      |                                                                                     |                                                 |                |                            |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                      | -                  | 0.163          | 0.951                                         | 1.968               | -                  | 1.968                | 1.488                                                                               | 1.620                                           | 1.187          | 1.809                      | Continuing         | Continuing        |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                  | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                   | -                                               | -              | -                          | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                      | -                  | -              | -                                             | -                   | -                  | -                    | -                                                                                   | -                                               | -              | -                          | -                  | -                 |

**Description:**

The Information Systems Security Program (ISSP) ensures the protection of Navy and joint cyberspace systems from exploitation and attack. Systems include wired and wireless telecommunications systems, cybersecurity systems, and the content processed, stored, or transmitted therein. ISSP includes protection of the Navy's National Security Systems (NSS).

The rapid change in the underlying commercial and government cyber infrastructures makes cybersecurity an increasingly complex and dynamic problem. ISSP provides the Navy's warfighter the essential information trust characteristics of availability, confidentiality, integrity, authentication, and non-repudiation. Cybersecurity capabilities must evolve quickly to meet the rapidly evolving threats and vulnerabilities.

Programs within the ISSP budget include:

P5 / Public Key Infrastructure (PKI): PKI implements a secure infrastructure for the generation, management, and delivery of digital certificates for secure electronic transactions, hardware certificate-based two-way authentication to networks, applications, web servers, and secure email.

P5 / Navy Cyber Situational Awareness (NCSA): NCSA is a command and control infrastructure that provides Navy commanders with timely, trusted, and comprehensive Situational Awareness (SA) of the cyberspace domain to include tailored, near real-time visualization of network health, vulnerabilities, and operational readiness through the correlation of data from multiple sources. NCSA enables early threat detection and timely decision making. NCSA ashore systems will enable Navy commanders to monitor, assess, plan, and direct Navy networks to provide a high-level of confidence that operational missions can be executed as planned in adverse cyber conditions. Cyber SA will be provided via web-accessible services generated from a primary core suite fielded at Navy Cyber Defense Operations Command (NCDOC). Visualizations and analytics will be customized based on end user needs, shareable and tailorable between different end users. End users include Fleet Cyber Command/Commander Tenth Fleet (FCC/C10F), Fleet Maritime Operations Centers (MOCs), NCDOC, and Navy Network Warfare Command (NNWC). NCSA procures equipment to collect, curate, analyze, and visualize maritime operations critical for providing Navy commanders with timely, trusted, and comprehensive SA of the cyberspace domain; Data as a Service (DaaS) which provides the ability to ingest disparate data from numerous data sources; analytics suite of software and logic to integrate and translate the data ingested by the DaaS component; visualization/user interface to display cyber SA data that are relevant to the unique needs of the Cyber Commander and for display via common visual services; as well as equipment for platforms conducting Ballistic Missile Defense (BMD) and Nuclear Command, Control, and Communications, Navy (NC3-N) missions. The data that is collected and analyzed via SHARKCAGE will be presented and visualized via the NCSA capability. Joint Regional Security Stacks (JRSS)/Cyber Situational Awareness Analytics Cloud (CSAAC) will integrate NCSA with CSAAC which achieves an integrated cyberspace mission to support Joint, maritime cyber, and mission operations. Ensures seamless information exchange and sharing of analytics, providing shared cyber SA. CSAAC is one of the five key elements of Joint Information Environment (JIE), providing cyber SA tools, collecting and analyzing data from the JRSS and joint management system.

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                               | <b>Date:</b> February 2018                                                          |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 15: Cryptographic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                               | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> 0303140N                                     |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |                                                                                     |
| <p>P3A / Computer Network Defense (CND): CND provides capabilities to secure the Cyber Domain. CND is a set of processes and protective measures that use computer networks to detect, monitor, protect, analyze and defend against network infiltrations resulting in service/network denial, degradation and disruptions. CND enables a government or military institute/organization to defend against network attacks perpetrated by malicious or adversarial computer systems or networks. The Fixed Submarine Broadcast System (FSBS) includes the Nuclear Command, Control, and Communications, Navy (NC3-N) requirement to defend networks supporting Emergency Action Messages (EAM) transmission.</p> <p>P3A / Navy Cryptography (Crypto): Navy Crypto modernizes legacy cryptographic equipment which includes families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories in order to meet mandated National Security Agency (NSA) cease key dates for modernized encryption. Advanced Cryptographic Capabilities (ACC), will provide NSA mandated cryptographic security software modernization of various communications security devices by cease key dates (details held at a higher classification).</p> <p>P3A / Key Management (KM): KM is a collection of Tier 2 security equipment, Key Management Infrastructure (KMI), and Tier 3 equipment Simple Key Loader (SKL). KMI will be a single, automated, network-accessible, electronic-based Key Management (KM) and predominantly electronic cryptographic product delivery infrastructure. It will provide Net Centric, reliable, timely, and secure COMSEC material management and distribution. It will additionally provide the means for secure ordering, generation, production, distribution, management and auditing of cryptographic products. The National Security Agency (NSA) mandates a tech refresh for the KMI system every five years.</p> <p>P3A / SHARKCAGE: SHARKCAGE is a global, federated Defensive Cyberspace Operations (DCO) enclave consisting of shore sensor nodes, DCO analysis workbenches, and analytic nodes. Utilizing one-way passive taps in a protected, isolated, classified environment, SHARKCAGE consolidates cyber event data from multiple platforms and networks, providing Navy DCO forces with a shared environment and common platform for integrated workflow, collaboration, and analysis. SHARKCAGE efficiently detects, correlates, and analyzes nation and non-nation state attacks against maritime data and the Naval Networking Environment (NNE). The data that is collected and analyzed via SHARKCAGE will be presented and visualized via the NCSA capability.</p> |                                               |                                                                                     |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                             |  |  |                                               |  |  |                                                                                     |  | <b>Date:</b> February 2018 |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment |  |  |                                               |  |  | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |  |                            |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                      |  |  | <b>Program Elements for Code B Items:</b> N/A |  |  | <b>Other Related Program Elements:</b> 0303140N                                     |  |                            |  |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                          |  |  |                                               |  |  |                                                                                     |  |                            |  |

  

| Exhibits Schedule |                                                                          |             |       |                | Prior Years                           | FY 2017                               | FY 2018                               | FY 2019 Base                          | FY 2019 OCO                           | FY 2019 Total                         |
|-------------------|--------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                   | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Info Systems Security Program (ISSP)                                 | P-5a        |       |                | - / 1,073.567                         | - / 1.323                             | - / 4.000                             | - / 2.746                             | - / 0.000                             | - / 2.746                             |
| P-3a              | 1 / Computer Network Defense (CND) Increment 2- Afloat (DA070) (Various) |             |       |                | - / 25.698                            | - / 4.513                             | - / 3.998                             | - / 2.982                             | - / 0.000                             | - / 2.982                             |
| P-3a              | 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070) (Various) |             |       |                | - / 135.721                           | - / 30.363                            | - / 24.154                            | - / 29.632                            | - / 0.000                             | - / 29.632                            |
| P-3a              | 3 / Navy Cryptography (Crypto) - Afloat (DA071) (Various)                |             |       |                | - / 179.980                           | - / 33.149                            | - / 28.512                            | - / 40.031                            | - / 0.000                             | - / 40.031                            |
| P-3a              | 4 / Navy Cryptography (Crypto) - Ashore (DA071) (Initial)                |             |       |                | - / 38.837                            | - / 10.849                            | - / 6.735                             | - / 38.353                            | - / 0.000                             | - / 38.353                            |
| P-3a              | 5 / Key Management (KM) - Afloat (DA005) (Various)                       |             |       |                | - / 71.405                            | - / 9.009                             | - / 5.242                             | - / 5.073                             | - / 0.000                             | - / 5.073                             |
| P-3a              | 6 / Key Management (KM) - Ashore (DA005) (Various)                       |             |       |                | - / 66.656                            | - / 3.248                             | - / 4.803                             | - / 6.212                             | - / 0.000                             | - / 6.212                             |
| P-3a              | 7 / SHARKCAGE - Afloat (DA070) (Initial)                                 |             |       |                | - / 0.000                             | - / 0.000                             | - / 3.083                             | - / 13.260                            | - / 0.000                             | - / 13.260                            |
| P-3a              | 8 / SHARKCAGE - Ashore (DA070) (Various)                                 |             |       |                | - / 0.000                             | - / 0.000                             | - / 9.136                             | - / 15.237                            | - / 0.000                             | - / 15.237                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                    |             |       |                | <b>- / 1,591.864</b>                  | <b>- / 92.454</b>                     | <b>- / 89.663</b>                     | <b>- / 153.526</b>                    | <b>- / 0.000</b>                      | <b>- / 153.526</b>                    |

  

| Exhibits Schedule |                                                                          |             |       |                | FY 2020                               | FY 2021                               | FY 2022                               | FY 2023                               | To Complete                           | Total                                 |
|-------------------|--------------------------------------------------------------------------|-------------|-------|----------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Exhibit Type      | Title*                                                                   | Subexhibits | ID CD | MDAP/MAIS Code | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) | Quantity / Total Cost (Each) / (\$ M) |
| P-5               | 1 / Info Systems Security Program (ISSP)                                 | P-5a        |       |                | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 | - / -                                 |
| P-3a              | 1 / Computer Network Defense (CND) Increment 2- Afloat (DA070) (Various) |             |       |                | - / 2.454                             | - / 2.096                             | - / 1.977                             | - / 1.869                             | Continuing                            | Continuing                            |
| P-3a              | 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070) (Various) |             |       |                | - / 32.292                            | - / 29.965                            | - / 30.707                            | - / 34.985                            | Continuing                            | Continuing                            |
| P-3a              | 3 / Navy Cryptography (Crypto) - Afloat (DA071) (Various)                |             |       |                | - / 35.650                            | - / 34.348                            | - / 36.213                            | - / 37.835                            | Continuing                            | Continuing                            |
| P-3a              | 4 / Navy Cryptography (Crypto) - Ashore (DA071) (Initial)                |             |       |                | - / 34.728                            | - / 29.842                            | - / 33.678                            | - / 33.489                            | Continuing                            | Continuing                            |
| P-3a              | 5 / Key Management (KM) - Afloat (DA005) (Various)                       |             |       |                | - / 5.763                             | - / 8.160                             | - / 8.550                             | - / 7.052                             | Continuing                            | Continuing                            |
| P-3a              | 6 / Key Management (KM) - Ashore (DA005) (Various)                       |             |       |                | - / 5.910                             | - / 3.604                             | - / 3.448                             | - / 5.201                             | Continuing                            | Continuing                            |
| P-3a              | 7 / SHARKCAGE - Afloat (DA070) (Initial)                                 |             |       |                | - / 38.841                            | - / 39.292                            | - / 41.154                            | - / 37.885                            | Continuing                            | Continuing                            |
| P-3a              | 8 / SHARKCAGE - Ashore (DA070) (Various)                                 |             |       |                | - / 11.187                            | - / 15.116                            | - / 4.805                             | - / 9.069                             | Continuing                            | Continuing                            |
| <b>P-40</b>       | <b>Total Gross/Weapon System Cost</b>                                    |             |       |                | <b>- / 169.790</b>                    | <b>- / 167.008</b>                    | <b>- / 164.884</b>                    | <b>- / 171.918</b>                    | <b>Continuing</b>                     | <b>Continuing</b>                     |

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

  

**Justification:**  
The FY 2019 funding request was reduced by (\$1.326) million to reflect the Department of Navy's effort to support the Office of Management and Budget directed reforms for Efficiency and Effectiveness that include a lean, accountable, more efficient government.

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        | Date: February 2018                                                          |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Program Elements for Code B Items: N/A | Other Related Program Elements: 0303140N                                     |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                              |
| <p>The FY 2019 funding increase is driven by the requirement to field cybersecurity infrastructure to the fleet. The primary drivers for the increase are Navy Cryptography, Advanced Cryptographic Capabilities (ACC), and SHARKCAGE.</p> <p>Computer Network Defense (CND) Increment 2-Ashore increase in FY19 to fund Shore Based Enterprise Network Enhancements. The FY19 funding is for the planning, design, relocation, procurement and installation of mission related C4I/IT equipment to new Naval Computer and Telecommunications for MILCON 913 Area Master Station Atlantic (NCTAMS LANT) Facility.</p> <p>Navy Cryptography Afloat FY19 increase to procure 90 VINSON/Advanced Narrowband Digital Voice Terminal (ANDVT) Crypto Modernization (VACM) as required to meet mandated National Security Agency (NSA) cease key dates. It additionally procures the initial 24 Advanced Cryptographic Capability (ACC) to meet the NSA mandated cryptographic security software modernization of various communications security devices.</p> <p>CND will also procure equipment to secure Navy afloat and ashore network information systems. Procurements will include hardware and software such as host-based protection tools, Department of Defense (DoD) mandated cyber security tools, cyber security capabilities, servers, laptops, ancillary devices, and equipment for Nuclear Command, Control, and Communications, Navy (NC3-N) networks supporting Emergency Action Messages (EAM) transmission to afloat and ashore platforms.</p> <p>Navy Cryptography (Crypto) - Ashore: FY19 increase funds to procurement of 1,279 VINSON/Advanced Narrowband Digital Voice Terminal (ANDVT) Crypto Modernization (VACM) required to meet mandated National Security Agency (NSA) cease key dates; the initial 16 Advanced Cryptographic Capability (ACC) to meet the NSA mandated cryptographic security software modernization of various communications security devices.</p> <p>Navy Cryptography (Crypto) - Afloat (DA071): FY19 increase is for(139) In-Line Network Encryptors (INE) and (1) COMSEC Phase II.</p> <p>Key Management (KM) (DA005): (1,233) Simple Key Loaders (SKL) and (95) Key Management Infrastructure (KMI) Tech Refresh NSA mandated five-year refresh cycle.</p> <p>SHARKCAGE (DA070): Under the Department of the Navy's direction FY19 is required for an increase in the procurement of (18) SHARKCAGE Afloat Suites, (2) Analytic Ashore Suites, and (5) Sensor Ashore Suites, which are required to detect emerging threats in the tactical environment, provide the capability to analyze active cyber threats and take actions to contain/stop actual or potential cyber threat activities.</p> <p>Public Key Infrastructure (PKI) (DA018): (10) PKI systems to include: Real-Time Automated Personal Identification System (RAPIDS) hardware/software, Navy Certificate Validation Infrastructure (NCVI) Secret Internet Protocol Router Network (SIPRNet) &amp; Non-Classified Internet Protocol Router Network (NIPRNet) hardware/software, and Logon Token product end items.</p> |                                        |                                                                              |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               | Date: February 2018                                                      |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                                                              |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Info Systems Security Program (ISSP) |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                                                                              |                     |               |                      | MDAP/MAIS Code:     |               |                                                                          |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017                                                                      |                     | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO                                                              |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                                                                            |                     | -             |                      | -                   |               | -                                                                        |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 1,073.567           |               | 1.323                                                                        |                     | 4.000         |                      | 2.746               |               | 0.000                                                                    |                     | 2.746         |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                            |                     | -             |                      | -                   |               | -                                                                        |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 1,073.567           |               | 1.323                                                                        |                     | 4.000         |                      | 2.746               |               | 0.000                                                                    |                     | 2.746         |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                            |                     | -             |                      | -                   |               | -                                                                        |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 1,073.567           |               | 1.323                                                                        |                     | 4.000         |                      | 2.746               |               | 0.000                                                                    |                     | 2.746         |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | -                                                                            |                     | -             |                      | -                   |               | -                                                                        |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                                                                            |                     | -             |                      | -                   |               | -                                                                        |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                                                                              | FY 2018             |               |                      | FY 2019 Base        |               |                                                                          | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                         | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - Consolidated Prior Year Requirements Cost                                                                                   |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| Non Recurring Cost                                                                                                                     |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| 1.1.1) Consolidated Prior Year Requirements <sup>(1)</sup>                                                                             | -                   | -             | 1,021.226            | -                   | -             | 0.000                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Non Recurring Cost                                                                                                           | -                   | -             | 1,021.226            | -                   | -             | 0.000                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Subtotal: Hardware - Consolidated Prior Year Requirements Cost                                                                         | -                   | -             | 1,021.226            | -                   | -             | 0.000                                                                        | -                   | -             | 0.000                | -                   | -             | 0.000                                                                    | -                   | -             | 0.000                | -                   | -             | 0.000                |
| Hardware - Public Key Infrastructure (PKI) (DA018) Cost                                                                                |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| 2.1.1) PKI - Procurement <sup>(t)</sup>                                                                                                | 0.708               | 45,296        | 32.059               | 88.500              | 10            | 0.885                                                                        | 88.500              | 10            | 0.885                | 88.500              | 10            | 0.885                                                                    | -                   | -             | 0.000                | 88.500              | 10            | 0.885                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 32.059               | -                   | -             | 0.885                                                                        | -                   | -             | 0.885                | -                   | -             | 0.885                                                                    | -                   | -             | 0.000                | -                   | -             | 0.885                |
| Subtotal: Hardware - Public Key Infrastructure (PKI) (DA018) Cost                                                                      | -                   | -             | 32.059               | -                   | -             | 0.885                                                                        | -                   | -             | 0.885                | -                   | -             | 0.885                                                                    | -                   | -             | 0.000                | -                   | -             | 0.885                |
| Hardware - Navy Cyber Situational Awareness (NCSA) (DA070) Cost                                                                        |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                      |
| 3.1.1) NCSA - Procurement <sup>(t)</sup>                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | 900.000             | 2             | 1.800                | 900.000             | 1             | 0.900                                                                    | -                   | -             | 0.000                | 900.000             | 1             | 0.900                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 1.800                | -                   | -             | 0.900                                                                    | -                   | -             | 0.000                | -                   | -             | 0.900                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                       |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     | Date: February 2018 |                                                                          |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                      |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                     |               |                      |                     |                     | Item Number / Title [DODIC]:<br>1 / Info Systems Security Program (ISSP) |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                               |                     |               |                      |                     |               |                                                                              |                     |               |                      | MDAP/MAIS Code:     |                     |                                                                          |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                  | Prior Years         |               |                      | FY 2017             |               |                                                                              | FY 2018             |               |                      | FY 2019 Base        |                     |                                                                          | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                         | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)       | Total Cost<br>(\$ M)                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Subtotal: Hardware - Navy Cyber Situational Awareness (NCSA) (DA070) Cost                      | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 1.800                | -                   | -                   | 0.900                                                                    | -                   | -             | 0.000                | -                   | -             | 0.900                |
| Hardware - PKI INSTALLATIONS Cost                                                              |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| 5.1.1) PKI - Installations                                                                     | -                   | -             | 9.592                | -                   | -             | 0.300                                                                        | -                   | -             | 0.300                | -                   | -                   | 0.300                                                                    | -                   | -             | 0.000                | -                   | -             | 0.300                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 9.592                | -                   | -             | 0.300                                                                        | -                   | -             | 0.300                | -                   | -                   | 0.300                                                                    | -                   | -             | 0.000                | -                   | -             | 0.300                |
| Subtotal: Hardware - PKI INSTALLATIONS Cost                                                    | -                   | -             | 9.592                | -                   | -             | 0.300                                                                        | -                   | -             | 0.300                | -                   | -                   | 0.300                                                                    | -                   | -             | 0.000                | -                   | -             | 0.300                |
| Hardware - Navy Cyber Situational Awareness (NCSA) INSTALLATIONS Cost                          |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                 |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| 6.1.1) NCSA - Installations <sup>(2)</sup>                                                     | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 0.568                | -                   | -                   | 0.284                                                                    | -                   | -             | 0.000                | -                   | -             | 0.284                |
| Subtotal: Recurring Cost                                                                       | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 0.568                | -                   | -                   | 0.284                                                                    | -                   | -             | 0.000                | -                   | -             | 0.284                |
| Subtotal: Hardware - Navy Cyber Situational Awareness (NCSA) INSTALLATIONS Cost                | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 0.568                | -                   | -                   | 0.284                                                                    | -                   | -             | 0.000                | -                   | -             | 0.284                |
| Support - Public Key Infrastructure (PKI) Cost                                                 |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| 7.1) PKI - Production Support                                                                  | -                   | -             | 5.825                | -                   | -             | 0.023                                                                        | -                   | -             | 0.023                | -                   | -                   | 0.023                                                                    | -                   | -             | 0.000                | -                   | -             | 0.023                |
| 7.2) PKI - DSA                                                                                 | -                   | -             | 4.865                | -                   | -             | 0.115                                                                        | -                   | -             | 0.162                | -                   | -                   | 0.218                                                                    | -                   | -             | 0.000                | -                   | -             | 0.218                |
| Subtotal: Support - Public Key Infrastructure (PKI) Cost                                       | -                   | -             | 10.690               | -                   | -             | 0.138                                                                        | -                   | -             | 0.185                | -                   | -                   | 0.241                                                                    | -                   | -             | 0.000                | -                   | -             | 0.241                |
| Support - Navy Cyber Situational Awareness (NCSA) Cost                                         |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| 8.1) NCSA - Production Support                                                                 | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 0.087                | -                   | -                   | 0.048                                                                    | -                   | -             | 0.000                | -                   | -             | 0.048                |
| 8.2) NCSA - DSA                                                                                | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 0.175                | -                   | -                   | 0.088                                                                    | -                   | -             | 0.000                | -                   | -             | 0.088                |
| Subtotal: Support - Navy Cyber Situational Awareness (NCSA) Cost                               | -                   | -             | 0.000                | -                   | -             | 0.000                                                                        | -                   | -             | 0.262                | -                   | -                   | 0.136                                                                    | -                   | -             | 0.000                | -                   | -             | 0.136                |
| Gross/Weapon System Cost                                                                       | -                   | -             | 1,073.567            | -                   | -             | 1.323                                                                        | -                   | -             | 4.000                | -                   | -                   | 2.746                                                                    | -                   | -             | 0.000                | -                   | -             | 2.746                |
| (†) indicates the presence of a P-5a                                                           |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |
| Footnotes:                                                                                     |                     |               |                      |                     |               |                                                                              |                     |               |                      |                     |                     |                                                                          |                     |               |                      |                     |               |                      |



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| <b>Exhibit P-5, Cost Analysis:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                        |                                                                                     | <b>Date:</b> February 2018                                                      |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                       | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) | <b>Item Number / Title [DODIC]:</b><br>1 / Info Systems Security Program (ISSP) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                |                                                                                     | <b>MDAP/MAIS Code:</b>                                                          |
| <p>(1) Consolidated Prior Year (PY) Requirements - PY requirements were consolidated into one line and include the following programs: Computer Network Defense (CND), Navy Cryptography (Crypto), Key Management (KM) and Cyber Virtual System Enclave (VSE).</p> <p>(2) Navy Cyber Situational Awareness (NCSA) unit costs fluctuate with variant being fielded.</p> |                                                                                     |                                                                                 |

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| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |  |  |  |                                                                                     |  |  |  | <b>Date:</b> February 2018                                                      |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |  |  |  | <b>Item Number / Title [DODIC]:</b><br>1 / Info Systems Security Program (ISSP) |  |  |  |  |

| Cost Elements             | O<br>C<br>O | FY   | Contractor and Location                              | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$ K) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
|---------------------------|-------------|------|------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|---------------------|------------------------|-------------------------------|-------------------|
| 2.1.1) PKI - Procurement  |             | 2017 | Defense Manpower Data Center (DMDC) / Alexandria, VA | WR                                   | Alexandria, VA  | Feb 2017      | Mar 2017                     | 10            | 88.500              | Y                      |                               |                   |
| 2.1.1) PKI - Procurement  |             | 2018 | Defense Manpower Data Center (DMDC) / Alexandria, VA | WR                                   | Alexandria, VA  | Feb 2018      | Mar 2018                     | 10            | 88.500              | Y                      |                               |                   |
| 2.1.1) PKI - Procurement  |             | 2019 | Defense Manpower Data Center (DMDC) / Alexandria, VA | WR                                   | Alexandria, VA  | Feb 2019      | Mar 2019                     | 10            | 88.500              | Y                      |                               |                   |
| 3.1.1) NCSA - Procurement |             | 2018 | SPAWAR Systems Center (SSC) Pacific / San Diego, CA  | WR                                   | San Diego, CA   | Dec 2017      | Mar 2018                     | 2             | 900.000             | Y                      |                               |                   |
| 3.1.1) NCSA - Procurement |             | 2019 | SPAWAR Systems Center (SSC) Pacific / San Diego, CA  | WR                                   | San Diego, CA   | Dec 2018      | Mar 2019                     | 1             | 900.000             | Y                      |                               |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                |                |                     |                                                                                     |                      |                        |                |                | <b>Date:</b> February 2018                                                                               |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                |                |                     | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                      |                        |                |                | <b>Modification Number / Title:</b><br>1 / Computer Network Defense (CND)<br>Increment 2- Afloat (DA070) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                |                |                     |                                                                                     |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                                          |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b> | <b>FY 2019 OCO</b>                                                                  | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                                           | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -                  | -              | -              | -                   | -                                                                                   | -                    | -                      | -              | -              | -                                                                                                        | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 25.698             | 4.513          | 3.998          | 2.982               | 0.000                                                                               | 2.982                | 2.454                  | 2.096          | 1.977          | 1.869                                                                                                    | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                                   | -                    | -                      | -              | -              | -                                                                                                        | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 25.698             | 4.513          | 3.998          | 2.982               | 0.000                                                                               | 2.982                | 2.454                  | 2.096          | 1.977          | 1.869                                                                                                    | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  | -              | -              | -                   | -                                                                                   | -                    | -                      | -              | -              | -                                                                                                        | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>25.698</b>      | <b>4.513</b>   | <b>3.998</b>   | <b>2.982</b>        | <b>0.000</b>                                                                        | <b>2.982</b>         | <b>2.454</b>           | <b>2.096</b>   | <b>1.977</b>   | <b>1.869</b>                                                                                             | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                |                |                     |                                                                                     |                      |                        |                |                |                                                                                                          |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                                   | -                    | -                      | -              | -              | -                                                                                                        | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  | -              | -              | -                   | -                                                                                   | -                    | -                      | -              | -              | -                                                                                                        | -                  | -                 |
| <p><b>Description:</b></p> <p>Computer Network Defense (CND): CND provides capabilities to secure the Cyber Domain. CND is a set of processes and protective measures that use computer networks to detect, monitor, protect, analyze and defend against network infiltrations resulting in service/network denial, degradation and disruptions. CND enables Navy networks to defend against cyber attacks perpetrated by malicious or adversarial computer systems or networks.</p> <p>The CND afloat capability will remain until all systems have transitioned to Consolidated Afloat Networks and Enterprise Services (CANES). CND afloat Operating System Environment (OSE) includes host-based protection tools, system vulnerability tools, cyber remediation tools, supporting hardware and software for Department of Defense (DoD) mandated tools, enhanced data correlation tools, switches, ancillary devices and other related security tools.</p> |                    |                |                |                     |                                                                                     |                      |                        |                |                |                                                                                                          |                    |                   |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                  |                                |                                |                                |                                                                              |                                |                                |                                | Date: February 2018                                                                               |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15            |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                | Modification Number / Title:<br>1 / Computer Network Defense (CND)<br>Increment 2- Afloat (DA070) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                     |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                                   |                                |                                |                                |                                |  |
| Models of Systems Affected: Ship, Sub                                                |                                |                                |                                | Modification Type: Various                                                   |                                |                                |                                | Related RDT&E PEs: 0303140N                                                                       |                                |                                |                                |                                |  |
| Financial Plan                                                                       | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                           | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Afloat (DA070) |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| B Kits                                                                               |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| Recurring                                                                            |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| 1.1.1) Operating System Environment (OSE) SW - NonOrganic <sup>(3)</sup>             | 224 / 6.758                    | 40 / 1.356                     | 34 / 1.206                     | 22 / 0.804                                                                   | - / -                          | 22 / 0.804                     | 19 / 0.684                     | 16 / 0.584                                                                                        | 14 / 0.525                     | 14 / 0.525                     | Continuing                     | Continuing                     |  |
| Subtotal: Recurring                                                                  | - / 6.758                      | - / 1.356                      | - / 1.206                      | - / 0.804                                                                    | - / -                          | - / 0.804                      | - / 0.684                      | - / 0.584                                                                                         | - / 0.525                      | - / 0.525                      | Continuing                     | Continuing                     |  |
| Subtotal: Computer Network Defense (CND) Increment 2- Afloat (DA070)                 | 224 / 6.758                    | 40 / 1.356                     | 34 / 1.206                     | 22 / 0.804                                                                   | - / -                          | 22 / 0.804                     | 19 / 0.684                     | 16 / 0.584                                                                                        | 14 / 0.525                     | 14 / 0.525                     | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                                        | - / 6.758                      | - / 1.356                      | - / 1.206                      | - / 0.804                                                                    | - / -                          | - / 0.804                      | - / 0.684                      | - / 0.584                                                                                         | - / 0.525                      | - / 0.525                      | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                                     |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| 2.1) Train-the-Trainer <sup>(4)</sup>                                                | - / 3.648                      | - / 0.655                      | - / 0.524                      | - / 0.519                                                                    | - / 0.000                      | - / 0.519                      | - / 0.335                      | - / 0.325                                                                                         | - / 0.317                      | - / 0.317                      | Continuing                     | Continuing                     |  |
| 2.2) Production Support                                                              | - / 0.601                      | - / 0.008                      | - / 0.060                      | - / 0.063                                                                    | - / 0.000                      | - / 0.063                      | - / 0.036                      | - / 0.031                                                                                         | - / 0.030                      | - / 0.029                      | Continuing                     | Continuing                     |  |
| 2.3) DSA                                                                             | - / 1.235                      | - / 0.050                      | - / 0.047                      | - / 0.050                                                                    | - / 0.000                      | - / 0.050                      | - / 0.050                      | - / 0.050                                                                                         | - / 0.055                      | - / 0.045                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                                    | - / 5.484                      | - / 0.713                      | - / 0.631                      | - / 0.632                                                                    | - / -                          | - / 0.632                      | - / 0.421                      | - / 0.406                                                                                         | - / 0.402                      | - / 0.391                      | Continuing                     | Continuing                     |  |
| Installation                                                                         |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Afloat (DA070) | - / 13.456                     | - / 2.444                      | - / 2.161                      | - / 1.546                                                                    | - / 0.000                      | - / 1.546                      | - / 1.349                      | - / 1.106                                                                                         | - / 1.050                      | - / 0.953                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                               | - / 13.456                     | - / 2.444                      | - / 2.161                      | - / 1.546                                                                    | - / -                          | - / 1.546                      | - / 1.349                      | - / 1.106                                                                                         | - / 1.050                      | - / 0.953                      | Continuing                     | Continuing                     |  |
| Total                                                                                |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                                    | 25.698                         | 4.513                          | 3.998                          | 2.982                                                                        | 0.000                          | 2.982                          | 2.454                          | 2.096                                                                                             | 1.977                          | 1.869                          | Continuing                     | Continuing                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |                                                                                     |  | <b>Date:</b> February 2018 |                                                                                                          |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 |  | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |  |                            | <b>Modification Number / Title:</b><br>1 / Computer Network Defense (CND)<br>Increment 2- Afloat (DA070) |  |  |

|                                                         |  |  |  |                        |  |  |  |
|---------------------------------------------------------|--|--|--|------------------------|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |
|---------------------------------------------------------|--|--|--|------------------------|--|--|--|

**Modification Item 1 of 1:** Computer Network Defense (CND) Increment 2- Afloat (DA070)

**Manufacturer Information**

|                                                                                                |  |  |  |                                       |  |  |  |
|------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------|--|--|--|
| Manufacturer Name: Operating System Environment (OSE) SW - SPAWAR System Center (SSC) Atlantic |  |  |  | Manufacturer Location: Charleston, SC |  |  |  |
| Administrative Leadtime (in Months): 2                                                         |  |  |  | Production Leadtime (in Months): 1    |  |  |  |

| Dates          | FY 2017  | FY 2018  | FY 2019  | FY 2020 | FY 2021 | FY 2022 | FY 2023 |
|----------------|----------|----------|----------|---------|---------|---------|---------|
| Contract Dates | Dec 2016 | Dec 2017 | Dec 2018 |         |         |         |         |
| Delivery Dates | Jan 2017 | Jan 2018 | Jan 2019 |         |         |         |         |

**Installation Information**

**Method of Implementation:** Installed:: Installation Name: Computer Network Defense (CND) Increment 2- Afloat

| Installation Cost | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                   | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|-------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                   | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years       | 224 / 13.456                   | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 224 / 13.456                   |
| FY 2017           | - / -                          | 40 / 2.444                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 40 / 2.444                     |
| FY 2018           | - / -                          | - / -                          | 34 / 2.161                     | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 34 / 2.161                     |
| FY 2019           | - / -                          | - / -                          | - / -                          | 22 / 1.546                     | 0 / 0.000                      | 22 / 1.546                     | - / -                          | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 22 / 1.546                     |
| FY 2020           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 19 / 1.349                     | - / -                          | - / -                          | - / -                          | 0 / 0.000                      | 19 / 1.349                     |
| FY 2021           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 16 / 1.106                     | - / -                          | - / -                          | 0 / 0.000                      | 16 / 1.106                     |
| FY 2022           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 14 / 1.050                     | - / -                          | 0 / 0.000                      | 14 / 1.050                     |
| FY 2023           | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 14 / 0.953                     | Continuing                     | Continuing                     |
| To Complete       | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total             | 224 / 13.456                   | 40 / 2.444                     | 34 / 2.161                     | 22 / 1.546                     | 0 / 0.000                      | 22 / 1.546                     | 19 / 1.349                     | 16 / 1.106                     | 14 / 1.050                     | 14 / 0.953                     | Continuing                     | Continuing                     |

**Installation Schedule**

|     | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |    |    |    | FY 2020 |    |    |    | FY 2021 |    |    |    | FY 2022 |    |    |    | FY 2023 |    |    |    | TC    | Tot   |
|-----|-----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|-------|-------|
|     |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In  | 211 | 13      | 21 | 10 | 7  | 2       | 14 | 10 | 9  | 1       | 10 | 6  | 6  | -       | 7  | 7  | 4  | 1       | 7  | 5  | 4  | -       | 4  | 7  | 3  | -       | 6  | 2  | 6  | Cont. | Cont. |
| Out | 210 | 14      | 20 | 8  | 10 | 2       | 13 | 11 | 9  | 1       | 8  | 8  | 6  | -       | 7  | 7  | 4  | 1       | 6  | 6  | 4  | -       | 4  | 7  | 3  | -       | 6  | 2  | 6  | Cont. | Cont. |

**Footnotes:**

<sup>(3)</sup> Operating System Environment (OSE) Software (SW) - FY19 quantities decrease as Consolidated Afloat Networks and Enterprise Services (CANES) is implemented. The CND shipboard infrastructure will move ashore in order to protect Navy afloat and ashore networks from cyber threats. OSE SW is centrally managed and loads software onto hardware. Quantities reflect one system per ship platform.

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                   |                                                                                     | <b>Date:</b> February 2018                                                                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                             | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) | <b>Modification Number / Title:</b><br>1 / Computer Network Defense (CND)<br>Increment 2- Afloat (DA070) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                      |                                                                                     | <b>MDAP/MAIS Code:</b>                                                                                   |
| <div><sup>(4)</sup> Train-the-Trainer - CND is designated Training Support Agent (TSA) and is required to transition initial training (train the trainer) to an approved solution at the schoolhouses.</div> |                                                                                     |                                                                                                          |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                    |             |         |         |                                                                              |             |               |                 |         | Date: February 2018                                                                               |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                                                              |             |         |         | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |             |               |                 |         | Modification Number / Title:<br>2 / Computer Network Defense (CND)<br>Increment 2- Ashore (DA070) |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |                                                                              |             |               | MDAP/MAIS Code: |         |                                                                                                   |         |             |            |
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                                 | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021 | FY 2022                                                                                           | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -                                                                            | -           | -             | -               | -       | -                                                                                                 | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 135.721     | 30.363  | 24.154  | 29.632                                                                       | 0.000       | 29.632        | 32.292          | 29.965  | 30.707                                                                                            | 34.985  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -                                                                            | -           | -             | -               | -       | -                                                                                                 | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 135.721     | 30.363  | 24.154  | 29.632                                                                       | 0.000       | 29.632        | 32.292          | 29.965  | 30.707                                                                                            | 34.985  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -                                                                            | -           | -             | -               | -       | -                                                                                                 | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 135.721     | 30.363  | 24.154  | 29.632                                                                       | 0.000       | 29.632        | 32.292          | 29.965  | 30.707                                                                                            | 34.985  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |                                                                              |             |               |                 |         |                                                                                                   |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -                                                                            | -           | -             | -               | -       | -                                                                                                 | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -                                                                            | -           | -             | -               | -       | -                                                                                                 | -       | -           | -          |

Description:  
Computer Network Defense (CND) ashore sites represent multiple CND architectures/capabilities within each build that are specifically procured for each site based on the site mission and latest cyber threat. CND builds and variants are specifically designed to each site in accordance with CND's rapid Information Technology (IT) fielding construct.  
  
CND ashore sites include: IT 21st Century (IT-21) Networks Operation Centers (NOC) which provide regional protection to shore and afloat assets within their area of responsibility; Navy Cyber Defense Operations Command (NCDOC), the designated Navy CND service provider, whose mission is to coordinate, monitor, analyze, and oversee the defense of Navy computer networks and NOCs who are responsible for accomplishing CND missions; Theater Network Operations and Security Centers (TNOSC) and Outside the Continental United States (OCONUS) Navy Enterprise Network (ONE-Net) Local Network Service Centers (LNSC). The ONE-Net security initiative consolidates LNSCs to their parent TNOSCs for more efficient operation and enables greater failover capability between ONE-Net sites; Broadcast Control Authorities (BCA); Fixed Submarine Broadcast System (FSBS); P-913: Shore Based Enterprise Network Enhancements for the Naval Computer and Telecommunications Area Master Station Atlantic (NCTAMSLANT) Facility (MILCON P-913) which requires the CND capability; Naval Computer and Telecommunications Station (NCTS) San Diego which provides Unclassified but Sensitive Internet Protocol Router Network (NIPRNet) and Secret Internet Protocol Router Network (SIPRNet) computer networking and the associated DoD mandated Information Assurance (IA)/CND tools upgrades to multiple Navy shore and afloat commands on the West coast; Pre-Planned Product Improvement (P3I) NCDOC upgrade which replaces end-of-life equipment with more robust capability at NCDOC to enhance the command's Cyber Defense Mission Support System (CDMSS) architectural framework to provide the necessary storage capability and processing power to ingest and analyze increased volumes of data from additional sources; The Virtual Training Environment (VTE) initiative which will transition equipment to an approved solution at the schoolhouses. CND is designated Training Support Agent (TSA); and CND Production Labs that provide CND architecture for production representative systems. In addition, the Nuclear Command, Control, and Communications, Navy (NC3-N) network which supports Emergency Action Messages (EAM) transmission to ashore and afloat adds CND capabilities at NCDOC, BCA and FSBS in support of the national NC3 mission.  
  
CND also provides ashore infrastructure to provision the latest cyber security updates to all afloat tactical units; including Consolidated Afloat Networks and Enterprise Services (CANES), Integrated Shipboard Network System (ISNS) and other networks, which roll up cyber network data to NCDOC. CND will deploy technologies to shore commands and the shore-based afloat infrastructure to improve network defense and security wholeness, countering intruders and attacks aimed at disrupting tactical communications at the afloat gateways and shore commands; this will help the Navy's ability to prevent, constrain, and mitigate cyber-attacks and critical vulnerabilities, as well as provide greater resiliency, awareness, data analytics, redundancy, and diversity into the Navy's Defense-in-Depth (DiD) strategy. CND shore sites will have modern network sensors, improving the ability to detect unusual network patterns and prevent/deter malicious attacks.  
  
CND procurement/installation quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Costs may vary by site and variant.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                       |                                |                                |                                |                                                                              |                                |                                |                                | Date: February 2018                                                                               |                                |                                |                                |                                |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                                 |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                | Modification Number / Title:<br>2 / Computer Network Defense (CND)<br>Increment 2- Ashore (DA070) |                                |                                |                                |                                |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                          |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                                   |                                |                                |                                |                                |
| Models of Systems Affected: Shore                                                                         |                                |                                | Modification Type: Various     |                                                                              |                                |                                |                                | Related RDT&E PEs: 0303140N                                                                       |                                |                                |                                |                                |
| Financial Plan                                                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                                           | FY 2022                        | FY 2023                        | To Complete                    | Total                          |
|                                                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                                    | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Procurement                                                                                               |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |
| Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Ashore (DA070)                      |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |
| B Kits                                                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |
| Recurring                                                                                                 |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |
| 1.1.1) Networks Operation Centers (NOC) - NonOrganic <sup>(5)</sup>                                       | 25 / 28.022                    | 4 / 3.739                      | 4 / 3.630                      | 4 / 3.751                                                                    | - / -                          | 4 / 3.751                      | 4 / 3.865                      | 4 / 4.028                                                                                         | 4 / 4.040                      | 4 / 4.080                      | Continuing                     | Continuing                     |
| 1.1.2) Navy Cyber Defense Operations Command (NCDOC) - NonOrganic <sup>(6)</sup>                          | 8 / 10.207                     | 5 / 5.036                      | 2 / 1.944                      | 2 / 2.019                                                                    | - / -                          | 2 / 2.019                      | 2 / 1.943                      | 2 / 1.990                                                                                         | 2 / 2.074                      | 2 / 2.080                      | Continuing                     | Continuing                     |
| 1.1.3) Theater Network Operations & Security Center (TNOSC) - NonOrganic <sup>(7)</sup>                   | 18 / 20.929                    | 3 / 2.764                      | 3 / 2.680                      | 3 / 2.700                                                                    | - / -                          | 3 / 2.700                      | 3 / 2.805                      | 3 / 2.910                                                                                         | 3 / 2.925                      | 3 / 2.940                      | Continuing                     | Continuing                     |
| 1.1.4) Broadcast Control Authorities (BCA) - NonOrganic <sup>(8)</sup>                                    | 16 / 6.007                     | 4 / 0.661                      | 4 / 0.684                      | 4 / 0.711                                                                    | - / -                          | 4 / 0.711                      | 4 / 0.680                      | 4 / 0.698                                                                                         | 4 / 0.701                      | 4 / 0.704                      | Continuing                     | Continuing                     |
| 1.1.5) Navy Enterprise Network (ONE-Net) Local Network Service Centers (LNSC) - NonOrganic <sup>(9)</sup> | 13 / 1.488                     | 11 / 0.770                     | - / -                          | - / -                                                                        | - / -                          | - / -                          | 11 / 0.825                     | - / -                                                                                             | - / -                          | 11 / 0.825                     | Continuing                     | Continuing                     |
| 1.1.6) Fixed Submarine Broadcast System (FSBS) - NonOrganic <sup>(10)</sup>                               | - / -                          | 7 / 2.000                      | 7 / 2.080                      | 7 / 2.184                                                                    | - / -                          | 7 / 2.184                      | 7 / 2.100                      | 7 / 2.104                                                                                         | 7 / 2.107                      | 7 / 2.118                      | Continuing                     | Continuing                     |
| 1.1.7) P-913: Shore Based Enterprise Network Enhancements - NonOrganic <sup>(11)</sup>                    | - / -                          | - / -                          | - / -                          | 1 / 2.913                                                                    | - / -                          | 1 / 2.913                      | 1 / 2.198                      | - / -                                                                                             | - / -                          | - / -                          | - / -                          | 2 / 5.111                      |
| 1.1.8) Naval Computer andTelecommunications Station (NCTS) - NonOrganic <sup>(12)</sup>                   | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | 1 / 2.289                      | - / -                                                                                             | - / -                          | 1 / 2.369                      | - / -                          | 2 / 4.658                      |
| 1.1.9) Pre-Planned Product Improvement (P3I): NCDOC Upgrade - Organic <sup>(13)</sup>                     | 3 / 12.226                     | 1 / 1.842                      | 1 / 1.916                      | 1 / 1.992                                                                    | - / -                          | 1 / 1.992                      | 1 / 2.013                      | 1 / 2.093                                                                                         | 1 / 2.135                      | 1 / 2.146                      | Continuing                     | Continuing                     |
| 1.1.10) Virtual Training Environment - Organic <sup>(14)</sup>                                            | 2 / 2.710                      | 1 / 0.765                      | 1 / 0.795                      | 1 / 0.835                                                                    | - / -                          | 1 / 0.835                      | 1 / 0.828                      | 1 / 0.861                                                                                         | 1 / 0.878                      | 1 / 0.882                      | Continuing                     | Continuing                     |
| 1.1.11) CND Production Labs - Organic <sup>(15)</sup>                                                     | 15 / 20.524                    | 3 / 3.863                      | 3 / 4.017                      | 3 / 4.218                                                                    | - / -                          | 3 / 4.218                      | 3 / 4.167                      | 3 / 4.334                                                                                         | 3 / 4.420                      | 3 / 4.422                      | Continuing                     | Continuing                     |
| Subtotal: Recurring                                                                                       | - / 102.113                    | - / 21.440                     | - / 17.746                     | - / 21.323                                                                   | - / -                          | - / 21.323                     | - / 23.713                     | - / 19.018                                                                                        | - / 19.280                     | - / 22.566                     | Continuing                     | Continuing                     |
| Subtotal: Computer Network Defense (CND) Increment 2- Ashore (DA070)                                      | 100 / 102.113                  | 39 / 21.440                    | 25 / 17.746                    | 26 / 21.323                                                                  | - / -                          | 26 / 21.323                    | 38 / 23.713                    | 25 / 19.018                                                                                       | 25 / 19.280                    | 37 / 22.566                    | Continuing                     | Continuing                     |
| Subtotal: Procurement, All Modification Items                                                             | - / 102.113                    | - / 21.440                     | - / 17.746                     | - / 21.323                                                                   | - / -                          | - / 21.323                     | - / 23.713                     | - / 19.018                                                                                        | - / 19.280                     | - / 22.566                     | Continuing                     | Continuing                     |
| Support (All Modification Items)                                                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                                   |                                |                                |                                |                                |
| 2.1) Train-the-Trainer <sup>(16)</sup>                                                                    | - / 3.156                      | - / 0.890                      | - / 0.924                      | - / 0.990                                                                    | - / -                          | - / 0.990                      | - / 1.005                      | - / 1.052                                                                                         | - / 1.200                      | - / 1.200                      | Continuing                     | Continuing                     |
| 2.2) Production Support                                                                                   | - / 4.946                      | - / 1.061                      | - / 0.783                      | - / 0.526                                                                    | - / -                          | - / 0.526                      | - / 1.208                      | - / 0.365                                                                                         | - / 0.554                      | - / 0.473                      | Continuing                     | Continuing                     |
| 2.3) DSA                                                                                                  | - / 3.742                      | - / 0.882                      | - / 0.594                      | - / 0.701                                                                    | - / -                          | - / 0.701                      | - / 0.744                      | - / 0.710                                                                                         | - / 0.771                      | - / 0.811                      | Continuing                     | Continuing                     |



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|---------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                  |                                       |                                       |                                       |                                                                                     |                                       |                                       |                                       |                                        |                                       | <b>Date:</b> February 2018                                                                               |                                       |                                       |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15            |                                       |                                       |                                       | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                       |                                       |                                       |                                        |                                       | <b>Modification Number / Title:</b><br>2 / Computer Network Defense (CND)<br>Increment 2- Ashore (DA070) |                                       |                                       |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                     |                                       |                                       |                                       |                                                                                     |                                       |                                       |                                       | <b>MDAP/MAIS Code:</b>                 |                                       |                                                                                                          |                                       |                                       |  |
| <b>Models of Systems Affected:</b> Shore                                                    |                                       |                                       |                                       | <b>Modification Type:</b> Various                                                   |                                       |                                       |                                       | <b>Related RDT&amp;E PEs:</b> 0303140N |                                       |                                                                                                          |                                       |                                       |  |
| <b>Financial Plan</b>                                                                       | <b>Prior Years</b>                    | <b>FY 2017</b>                        | <b>FY 2018</b>                        | <b>FY 2019 Base</b>                                                                 | <b>FY 2019 OCO</b>                    | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                        | <b>FY 2021</b>                         | <b>FY 2022</b>                        | <b>FY 2023</b>                                                                                           | <b>To Complete</b>                    | <b>Total</b>                          |  |
|                                                                                             | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                               | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>  | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i>                                                                    | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |  |
| <i>Subtotal: Support</i>                                                                    | - / 11.844                            | - / 2.833                             | - / 2.301                             | - / 2.217                                                                           | - / -                                 | - / 2.217                             | - / 2.957                             | - / 2.127                              | - / 2.525                             | - / 2.484                                                                                                | Continuing                            | Continuing                            |  |
| <b>Installation</b>                                                                         |                                       |                                       |                                       |                                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                          |                                       |                                       |  |
| <i>Modification Item 1 of 1:</i> Computer Network Defense (CND) Increment 2- Ashore (DA070) | - / 21.764                            | - / 6.090                             | - / 4.107                             | - / 6.092                                                                           | - / 0.000                             | - / 6.092                             | - / 5.622                             | - / 8.820                              | - / 8.902                             | - / 9.935                                                                                                | Continuing                            | Continuing                            |  |
| <i>Subtotal: Installation</i>                                                               | - / 21.764                            | - / 6.090                             | - / 4.107                             | - / 6.092                                                                           | - / -                                 | - / 6.092                             | - / 5.622                             | - / 8.820                              | - / 8.902                             | - / 9.935                                                                                                | Continuing                            | Continuing                            |  |
| <b>Total</b>                                                                                |                                       |                                       |                                       |                                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                          |                                       |                                       |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                                    | <b>135.721</b>                        | <b>30.363</b>                         | <b>24.154</b>                         | <b>29.632</b>                                                                       | <b>0.000</b>                          | <b>29.632</b>                         | <b>32.292</b>                         | <b>29.965</b>                          | <b>30.707</b>                         | <b>34.985</b>                                                                                            | <b>Continuing</b>                     | <b>Continuing</b>                     |  |
|                                                                                             |                                       |                                       |                                       |                                                                                     |                                       |                                       |                                       |                                        |                                       |                                                                                                          |                                       |                                       |  |

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|--------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------|---------------------------------------|------------|---------------------------------------|----------------|---------------------------------------|------------|---------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------|------------|---------------------------------------|----------------|--------------------------------------------|------------|---------------------------------------|----------------|---------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------|----------------|---------------------------------------|-------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                         |            |                                       |                                       |            |                                       |                |                                       |            |                                       | <b>Date:</b> February 2018                                                          |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                   |            |                                       |                                       |            |                                       |                |                                       |            |                                       | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                       |            |                                       |                |                                            |            |                                       |                |                                       | <b>Modification Number / Title:</b><br>2 / Computer Network Defense (CND)<br>Increment 2- Ashore (DA070) |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                            |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                | <b>MDAP/MAIS Code:</b>                     |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Computer Network Defense (CND) Increment 2- Ashore (DA070)                        |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                    |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| Manufacturer Name: CND Equipment - SPAWAR System Center (SSC) Atlantic                                             |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                | Manufacturer Location: Charleston, SC      |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| Administrative Leadtime <i>(in Months)</i> : 2                                                                     |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                | Production Leadtime <i>(in Months)</i> : 3 |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                       |            | <b>FY 2017</b>                        |                                       |            |                                       | <b>FY 2018</b> |                                       |            |                                       | <b>FY 2019</b>                                                                      |                                       |            |                                       | <b>FY 2020</b> |                                            |            |                                       | <b>FY 2021</b> |                                       |                                                                                                          |                                       | <b>FY 2022</b> |                                       |             |           | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                     |            | Dec 2016                              |                                       |            |                                       | Dec 2017       |                                       |            |                                       | Dec 2018                                                                            |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| Delivery Dates                                                                                                     |            | Mar 2017                              |                                       |            |                                       | Mar 2018       |                                       |            |                                       | Mar 2019                                                                            |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                    |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Installed:: Installation Name: Computer Network Defense (CND) Increment 2- Ashore |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                           |            | <b>Prior Years</b>                    | <b>FY 2017</b>                        |            | <b>FY 2018</b>                        |                | <b>FY 2019 Base</b>                   |            | <b>FY 2019 OCO</b>                    |                                                                                     | <b>FY 2019 Total</b>                  |            | <b>FY 2020</b>                        |                | <b>FY 2021</b>                             |            | <b>FY 2022</b>                        |                | <b>FY 2023</b>                        |                                                                                                          | <b>To Complete</b>                    |                | <b>Total</b>                          |             |           |                |           |           |           |           |            |
|                                                                                                                    |            | <i>Qty (Each) / Total Cost (\$ M)</i> | <i>Qty (Each) / Total Cost (\$ M)</i> |            | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |            | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                                     | <i>Qty (Each) / Total Cost (\$ M)</i> |            | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i>      |            | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |                                                                                                          | <i>Qty (Each) / Total Cost (\$ M)</i> |                | <i>Qty (Each) / Total Cost (\$ M)</i> |             |           |                |           |           |           |           |            |
| Prior Years                                                                                                        |            | 80 / 21.764                           |                                       | - / -      |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | - / -      |                                       | - / -          |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 80 / 21.764 |           |                |           |           |           |           |            |
| FY 2017                                                                                                            |            | - / -                                 |                                       | 34 / 6.090 |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | - / -      |                                       | - / -          |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 34 / 6.090  |           |                |           |           |           |           |            |
| FY 2018                                                                                                            |            | - / -                                 |                                       | - / -      |                                       | 20 / 4.107     |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | - / -      |                                       | - / -          |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 20 / 4.107  |           |                |           |           |           |           |            |
| FY 2019                                                                                                            |            | - / -                                 |                                       | - / -      |                                       | - / -          |                                       | 21 / 6.092 |                                       | 0 / 0.000                                                                           |                                       | 21 / 6.092 |                                       | - / -          |                                            | - / -      |                                       | - / -          |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 21 / 6.092  |           |                |           |           |           |           |            |
| FY 2020                                                                                                            |            | - / -                                 |                                       | - / -      |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | 33 / 5.622     |                                            | - / -      |                                       | - / -          |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 33 / 5.622  |           |                |           |           |           |           |            |
| FY 2021                                                                                                            |            | - / -                                 |                                       | - / -      |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | 20 / 8.820 |                                       | - / -          |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 20 / 8.820  |           |                |           |           |           |           |            |
| FY 2022                                                                                                            |            | - / -                                 |                                       | - / -      |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | - / -      |                                       | 20 / 8.902     |                                       | - / -                                                                                                    |                                       | 0 / 0.000      |                                       | 20 / 8.902  |           |                |           |           |           |           |            |
| FY 2023                                                                                                            |            | - / -                                 |                                       | - / -      |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | - / -      |                                       | - / -          |                                       | 32 / 9.935                                                                                               |                                       | 0 / 0.000      |                                       | 32 / 9.935  |           |                |           |           |           |           |            |
| To Complete                                                                                                        |            | - / -                                 |                                       | - / -      |                                       | - / -          |                                       | - / -      |                                       | - / -                                                                               |                                       | - / -      |                                       | - / -          |                                            | - / -      |                                       | - / -          |                                       | - / -                                                                                                    |                                       | Continuing     |                                       | Continuing  |           |                |           |           |           |           |            |
| Total                                                                                                              |            | 80 / 21.764                           |                                       | 34 / 6.090 |                                       | 20 / 4.107     |                                       | 21 / 6.092 |                                       | 0 / 0.000                                                                           |                                       | 21 / 6.092 |                                       | 33 / 5.622     |                                            | 20 / 8.820 |                                       | 20 / 8.902     |                                       | 32 / 9.935                                                                                               |                                       | Continuing     |                                       | Continuing  |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                       |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
|                                                                                                                    | <b>PYS</b> | <b>FY 2017</b>                        |                                       |            |                                       | <b>FY 2018</b> |                                       |            |                                       | <b>FY 2019</b>                                                                      |                                       |            |                                       | <b>FY 2020</b> |                                            |            |                                       | <b>FY 2021</b> |                                       |                                                                                                          |                                       | <b>FY 2022</b> |                                       |             |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                    |            | <b>Q1</b>                             | <b>Q2</b>                             | <b>Q3</b>  | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b>  | <b>Q4</b>                             | <b>Q1</b>                                                                           | <b>Q2</b>                             | <b>Q3</b>  | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                                  | <b>Q3</b>  | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b>                                                                                                | <b>Q4</b>                             | <b>Q1</b>      | <b>Q2</b>                             | <b>Q3</b>   | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                 | 80         | -                                     | 23                                    | -          | 11                                    | -              | 10                                    | -          | 10                                    | -                                                                                   | 12                                    | -          | 9                                     | -              | 20                                         | 1          | 12                                    | -              | 10                                    | -                                                                                                        | 10                                    | -              | 10                                    | -           | 10        | -              | 21        | -         | 11        | Cont.     | Cont.      |
| Out                                                                                                                | 79         | 1                                     | 23                                    | -          | 11                                    | -              | 10                                    | -          | 10                                    | -                                                                                   | 12                                    | -          | 9                                     | -              | 20                                         | 1          | 12                                    | -              | 10                                    | -                                                                                                        | 10                                    | -              | 10                                    | -           | 10        | -              | 21        | -         | 11        | Cont.     | Cont.      |
|                                                                                                                    |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Method of Implementation (Organic):</b> Pre-Planned Product Improvement (P3I): NCDIC Upgrade - Not Installed    |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       | <b>Installation Quantity:</b> 0                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
|                                                                                                                    |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
| <b>Method of Implementation (Organic):</b> Virtual Training Environment - Not Installed                            |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       | <b>Installation Quantity:</b> 0                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |
|                                                                                                                    |            |                                       |                                       |            |                                       |                |                                       |            |                                       |                                                                                     |                                       |            |                                       |                |                                            |            |                                       |                |                                       |                                                                                                          |                                       |                |                                       |             |           |                |           |           |           |           |            |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                     | <b>Date:</b> February 2018                                                                               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) | <b>Modification Number / Title:</b><br>2 / Computer Network Defense (CND)<br>Increment 2- Ashore (DA070) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                     | <b>MDAP/MAIS Code:</b>                                                                                   |
| <b>Modification Item 1 of 1:</b> Computer Network Defense (CND) Increment 2- Ashore (DA070)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                     |                                                                                                          |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     |                                                                                                          |
| <b>Method of Implementation (Organic):</b> CND Production Labs - Not Installed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                     | <b>Installation Quantity:</b> 0                                                                          |
| <p><b>Footnotes:</b></p> <p>(5) Networks Operation Centers (NOC) - Installation unit cost fluctuations vary by site type as well as the variant/capabilities being fielded to the site. CND quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement/installation costs will vary year to year due to the delivering capabilities determined by the CND capabilities Steering Group (CCSG).</p> <p>(6) Navy Cyber Defense Operations Command (NCDOD) - Installation unit cost fluctuations vary by site type as well as the variant/capabilities being fielded to the site. CND quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement/installation costs will vary year to year due to the delivering capabilities determined by the CCSG.</p> <p>(7) Theater Network Operations &amp; Security Center (TNOSC) - Installation unit cost fluctuations vary by site type as well as the variant/capabilities being fielded to the site. CND quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement/installation costs will vary year to year due to the delivering capabilities determined by the CCSG.</p> <p>(8) Broadcast Control Authorities (BCA) - Installation unit cost fluctuations vary by site type as well as the variant/capabilities being fielded to the site. CND quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement/installation costs will vary year to year due to the delivering capabilities determined by the CCSG.</p> <p>(9) Navy Enterprise Network (ONE-Net) - Local Network Service Centers (LNSC) - CND Inc 2 Shore installation unit cost fluctuations vary by site type as well as the variant/capabilities being fielded to the site. CND quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement/installation costs will vary year to year due to the delivering capabilities determined by the CCSG.</p> <p>(10) Fixed Submarine Broadcast System (FSBS) - Installation unit cost fluctuations vary by site type as well as the variant/capabilities being fielded to the site. CND quantities represent multiple CND architectures with an assortment of builds that are specifically designed to each site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement/installation costs will vary year to year due to the delivering capabilities determined by the CCSG.</p> <p>(11) P-913: Shore Based Enterprise Network Enhancements - FY19 funding is for the planning, design, relocation, procurement and installation of mission related C4I/IT equipment to new Naval Computer and Telecommunications Area Master Station Atlantic (NCTAMS LANT) Facility (MILCON P-913). FY19 unit cost reflects a more robust cybersecurity capability.</p> <p>(12) Naval Computer and Telecommunications Station (NCTS) - San Diego provides NIPRNet and SIPRNet computer networking and the associated DoD mandated IA/CND tools upgrades to multiple Navy shore and afloat commands.</p> <p>(13) Pre-Planned Product Improvement (P3I): NCDOD Upgrade - FY19 unit cost increase reflects a more robust cybersecurity capability required to upgrade end-of-life equipment to support the NCDOD mission.</p> <p>(14) Virtual Training Environment (VTE) - CND is required to transition equipment to an approved solution at the schoolhouses. Mandatory system upgrades required annually to address the latest cyber threat. No associated install costs.</p> <p>(15) CND Production Labs - No associated install costs.</p> <p>(16) Train-the-Trainer - CND is designated Training Support Agent (TSA) and is required to transition initial training (train the trainer) to an approved solution at the schoolhouses.</p> |                                                                                     |                                                                                                          |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                                     |  | <b>Date:</b> February 2018 |  |                                                                                        |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |  |                            |  | <b>Modification Number / Title:</b><br>3 / Navy Cryptography (Crypto) - Afloat (DA071) |  |  |  |

|                                                         |  |  |  |  |  |                        |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 179.980     | 33.149  | 28.512  | 40.031       | 0.000       | 40.031        | 35.650  | 34.348  | 36.213  | 37.835  | Continuing  | Continuing |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 179.980     | 33.149  | 28.512  | 40.031       | 0.000       | 40.031        | 35.650  | 34.348  | 36.213  | 37.835  | Continuing  | Continuing |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 179.980     | 33.149  | 28.512  | 40.031       | 0.000       | 40.031        | 35.650  | 34.348  | 36.213  | 37.835  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |            |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |

**Description:**

The Navy Cryptography (Crypto) program is designated as Department of Navy's (DoN) Cryptographic Modernization Program Office (CMPO). CMPO procures, installs, and provides life-cycle support for National Security Agency (NSA) Type-1 end cryptographic units for United States Navy (USN) (to include Military Sealift Command (MSC) platforms), United States Marine Corps (USMC), and United States Coast Guard (USCG). Navy Crypto afloat equipment includes: Families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories for all Services.

Crypto Data products include: Advanced Cryptographic Capabilities (ACC), which provide NSA mandated cryptographic security software modernization of various communications security devices by cease key dates (details held at a higher classification); In-Line Network Encryptors (INE); KIV-7M (COMSEC Serial Crypto Replacement); KW-46; Cryptographic Universal Enclosures (CUE), and KGV-11M TRANSEC.

Crypto Voice products include: VINSON/Advanced Narrowband Digital Voice Terminal (ANDVT) Cryptographic Modernization (VACM). VACM is the modern cryptographic product replacement for legacy secure voice products.

Space and Naval Warfare Systems Command (SPAWAR) is the VACM Central Procuring Agency for the USN to include the MSC, Naval Air Systems Command (NAVAIR), USMC and USCG.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                             |                                |                                |                                |                                                                              |                                |                                |                                | Date: February 2018                                                             |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                       |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                | Modification Number / Title:<br>3 / Navy Cryptography (Crypto) - Afloat (DA071) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                 |                                |                                |                                |                                |  |
| Models of Systems Affected: Ship                                                                |                                |                                |                                | Modification Type: Various                                                   |                                |                                |                                | Related RDT&E PEs: 0303140N                                                     |                                |                                |                                |                                |  |
| Financial Plan                                                                                  | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                         | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                                     |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Navy Cryptography (Crypto) - Afloat (DA071)                           |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| B Kits                                                                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Recurring                                                                                       |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| 1.1.1) KW-46 - NonOrganic                                                                       | 153 / 4.572                    | 68 / 2.007                     | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                           | - / -                          | - / -                          | - / -                          | 221 / 6.579                    |  |
| 1.1.2) Cryptographic Universal Enclosures (CUE) CSRR - NonOrganic                               | 47 / 9.805                     | 7 / 0.805                      | 4 / 0.463                      | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                           | - / -                          | - / -                          | - / -                          | 58 / 11.073                    |  |
| 1.1.3) COMSEC Serial Crypto Replacement (Phase II) - NonOrganic                                 | 94 / 1.657                     | 18 / 0.360                     | 5 / 0.100                      | 1 / 0.020                                                                    | - / -                          | 1 / 0.020                      | - / -                          | - / -                                                                           | - / -                          | - / -                          | - / -                          | 118 / 2.137                    |  |
| 1.1.4) VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM) - NonOrganic <sup>(17)</sup> | 50 / 11.500                    | 37 / 8.510                     | 39 / 8.970                     | 90 / 20.700                                                                  | - / -                          | 90 / 20.700                    | 84 / 19.320                    | 73 / 16.790                                                                     | 83 / 19.090                    | 86 / 19.780                    | Continuing                     | Continuing                     |  |
| 1.1.5) In-Line Network Encryptors (INE) - Organic                                               | 4,849 / 64.470                 | 88 / 1.056                     | 232 / 2.784                    | 139 / 1.668                                                                  | - / -                          | 139 / 1.668                    | 132 / 1.584                    | 127 / 1.524                                                                     | 145 / 1.740                    | 166 / 1.992                    | Continuing                     | Continuing                     |  |
| 1.1.6) Advanced Cryptographic Capability (ACC) - Organic <sup>(18)</sup>                        | - / -                          | - / -                          | - / -                          | 24 / 12.000                                                                  | - / -                          | 24 / 12.000                    | 12 / 6.000                     | - / -                                                                           | - / -                          | - / -                          | - / -                          | 36 / 18.000                    |  |
| 1.1.7) KGV-11M Transmission Security (TRANSEC) - Organic                                        | - / -                          | - / -                          | - / -                          | - / -                                                                        | - / -                          | - / -                          | 87 / 1.566                     | 528 / 9.504                                                                     | 528 / 9.504                    | 528 / 9.504                    | - / -                          | 1,671 / 30.078                 |  |
| Subtotal: Recurring                                                                             | - / 92.004                     | - / 12.738                     | - / 12.317                     | - / 34.388                                                                   | - / -                          | - / 34.388                     | - / 28.470                     | - / 27.818                                                                      | - / 30.334                     | - / 31.276                     | Continuing                     | Continuing                     |  |
| Subtotal: Navy Cryptography (Crypto) - Afloat (DA071)                                           | 5,193 / 92.004                 | 218 / 12.738                   | 280 / 12.317                   | 254 / 34.388                                                                 | - / -                          | 254 / 34.388                   | 315 / 28.470                   | 728 / 27.818                                                                    | 756 / 30.334                   | 780 / 31.276                   | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                                                   | - / 92.004                     | - / 12.738                     | - / 12.317                     | - / 34.388                                                                   | - / -                          | - / 34.388                     | - / 28.470                     | - / 27.818                                                                      | - / 30.334                     | - / 31.276                     | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                                                |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| 2.1) Production Support <sup>(19)</sup>                                                         | - / 24.104                     | - / 0.427                      | - / 0.456                      | - / 1.221                                                                    | - / -                          | - / 1.221                      | - / 1.030                      | - / 1.000                                                                       | - / 1.101                      | - / 1.094                      | Continuing                     | Continuing                     |  |
| 2.2) DSA <sup>(20)</sup>                                                                        | - / 31.381                     | - / 6.195                      | - / 4.696                      | - / 0.638                                                                    | - / -                          | - / 0.638                      | - / 0.569                      | - / 0.470                                                                       | - / 0.381                      | - / 0.465                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                                               | - / 55.485                     | - / 6.622                      | - / 5.152                      | - / 1.859                                                                    | - / -                          | - / 1.859                      | - / 1.599                      | - / 1.470                                                                       | - / 1.482                      | - / 1.559                      | Continuing                     | Continuing                     |  |
| Installation                                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Navy Cryptography (Crypto) - Afloat (DA071)                           | - / 32.491                     | - / 13.789                     | - / 11.043                     | - / 3.784                                                                    | - / 0.000                      | - / 3.784                      | - / 5.581                      | - / 5.060                                                                       | - / 4.397                      | - / 5.000                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                                          | - / 32.491                     | - / 13.789                     | - / 11.043                     | - / 3.784                                                                    | - / -                          | - / 3.784                      | - / 5.581                      | - / 5.060                                                                       | - / 4.397                      | - / 5.000                      | Continuing                     | Continuing                     |  |
| Total                                                                                           |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                                               | 179.980                        | 33.149                         | 28.512                         | 40.031                                                                       | 0.000                          | 40.031                         | 35.650                         | 34.348                                                                          | 36.213                         | 37.835                         | Continuing                     | Continuing                     |  |
|                                                                                                 |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                               |                |                |                                                                                     |                                              | <b>Date:</b> February 2018 |                                                                                        |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                         |                |                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                              |                            | <b>Modification Number / Title:</b><br>3 / Navy Cryptography (Crypto) - Afloat (DA071) |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                  |                |                |                                                                                     |                                              | <b>MDAP/MAIS Code:</b>     |                                                                                        |                |
| <b>Modification Item 1 of 1:</b> Navy Cryptography (Crypto) - Afloat (DA071)                             |                |                |                                                                                     |                                              |                            |                                                                                        |                |
| <b>Manufacturer Information</b>                                                                          |                |                |                                                                                     |                                              |                            |                                                                                        |                |
| Manufacturer Name: KW-46 - Raytheon (NSA)                                                                |                |                |                                                                                     | Manufacturer Location: Columbia, MD          |                            |                                                                                        |                |
| Administrative Leadtime ( <i>in Months</i> ): 4                                                          |                |                |                                                                                     | Production Leadtime ( <i>in Months</i> ): 7  |                            |                                                                                        |                |
| <b>Dates</b>                                                                                             | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                         | <b>FY 2023</b> |
| Contract Dates                                                                                           | Feb 2017       |                |                                                                                     |                                              |                            |                                                                                        |                |
| Delivery Dates                                                                                           | Sep 2017       |                |                                                                                     |                                              |                            |                                                                                        |                |
| Manufacturer Name: Communications Security (COMSEC) (Phase II) - Raytheon (NSA)                          |                |                |                                                                                     | Manufacturer Location: Waltham, MA           |                            |                                                                                        |                |
| Administrative Leadtime ( <i>in Months</i> ): 4                                                          |                |                |                                                                                     | Production Leadtime ( <i>in Months</i> ): 7  |                            |                                                                                        |                |
| <b>Dates</b>                                                                                             | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                         | <b>FY 2023</b> |
| Contract Dates                                                                                           | Feb 2017       | Feb 2018       | Feb 2019                                                                            |                                              |                            |                                                                                        |                |
| Delivery Dates                                                                                           | Sep 2017       | Sep 2018       | Sep 2019                                                                            |                                              |                            |                                                                                        |                |
| Manufacturer Name: VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM) - Raytheon (USAF)         |                |                |                                                                                     | Manufacturer Location: Largo, FL             |                            |                                                                                        |                |
| Administrative Leadtime ( <i>in Months</i> ): 2                                                          |                |                |                                                                                     | Production Leadtime ( <i>in Months</i> ): 12 |                            |                                                                                        |                |
| <b>Dates</b>                                                                                             | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                         | <b>FY 2023</b> |
| Contract Dates                                                                                           | Dec 2016       | Dec 2017       | Dec 2018                                                                            |                                              |                            |                                                                                        |                |
| Delivery Dates                                                                                           | Dec 2017       | Dec 2018       | Dec 2019                                                                            |                                              |                            |                                                                                        |                |
| Manufacturer Name: Cryptographic Universal Enclosures (CUE) - CSRR - SPAWAR Systems Center (SSC) Pacific |                |                |                                                                                     | Manufacturer Location: San Diego, CA         |                            |                                                                                        |                |
| Administrative Leadtime ( <i>in Months</i> ): 4                                                          |                |                |                                                                                     | Production Leadtime ( <i>in Months</i> ): 7  |                            |                                                                                        |                |
| <b>Dates</b>                                                                                             | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                         | <b>FY 2023</b> |
| Contract Dates                                                                                           | Feb 2017       | Feb 2018       |                                                                                     |                                              |                            |                                                                                        |                |
| Delivery Dates                                                                                           | Sep 2017       | Sep 2018       |                                                                                     |                                              |                            |                                                                                        |                |
| Manufacturer Name: In-Line Network Encryptors (INE) - NSA                                                |                |                |                                                                                     | Manufacturer Location: Fort Meade, MD        |                            |                                                                                        |                |
| Administrative Leadtime ( <i>in Months</i> ): 3                                                          |                |                |                                                                                     | Production Leadtime ( <i>in Months</i> ): 7  |                            |                                                                                        |                |
| <b>Dates</b>                                                                                             | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b>                                                                      | <b>FY 2020</b>                               | <b>FY 2021</b>             | <b>FY 2022</b>                                                                         | <b>FY 2023</b> |
| Contract Dates                                                                                           | Jan 2017       | Jan 2018       | Jan 2019                                                                            |                                              |                            |                                                                                        |                |
| Delivery Dates                                                                                           | Aug 2017       | Aug 2018       | Aug 2019                                                                            |                                              |                            |                                                                                        |                |
| Manufacturer Name: Advanced Cryptographic Capability (ACC) - TBD <sup>(21)</sup>                         |                |                |                                                                                     | Manufacturer Location: TBD                   |                            |                                                                                        |                |
| Administrative Leadtime ( <i>in Months</i> ): 3                                                          |                |                |                                                                                     | Production Leadtime ( <i>in Months</i> ): 7  |                            |                                                                                        |                |

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|-----------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|------------------------|-----------|-----------|----------------|-----------|----------------------------------------------------------------------------------------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|------------------------------------|------------|--|--|--|--|--|--|--|--|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                          |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>Date:</b> February 2018                                                          |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                    |            |                                |                                |                                |                                |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                |                |                        |           |           |                |           | <b>Modification Number / Title:</b><br>3 / Navy Cryptography (Crypto) - Afloat (DA071) |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                             |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Modification Item 1 of 1:</b> Navy Cryptography (Crypto) - Afloat (DA071)                        |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Manufacturer Information</b>                                                                     |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Dates</b>                                                                                        |            | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                                      |                                |                                |                                | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                                        |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| Contract Dates                                                                                      |            |                                |                                |                                |                                |                                |                                |                                |                                | Jan 2019                                                                            |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| Delivery Dates                                                                                      |            |                                |                                |                                |                                |                                |                                |                                |                                | Aug 2019                                                                            |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Installation Information</b>                                                                     |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Method of Implementation:</b> Installed:: Installation Name: Navy Cryptography (Crypto) - Afloat |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Installation Cost</b>                                                                            |            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                                                                      | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
|                                                                                                     |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| Prior Years                                                                                         |            | 224 / 32.491                   | 120 / 11.851                   | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | 0 / 0.000                      | 344 / 44.342                   |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2017                                                                                             |            | - / -                          | 21 / 1.938                     | 109 / 10.605                   | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | 0 / 0.000                      | 130 / 12.543                   |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2018                                                                                             |            | - / -                          | - / -                          | 2 / 0.438                      | 46 / 3.784                     | 0 / 0.000                      | 46 / 3.784                     | - / -                          | - / -                          | - / -                                                                               | - / -                          | 0 / 0.000                      | 48 / 4.222                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2019                                                                                             |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 91 / 5.581                     | - / -                          | - / -                                                                               | - / -                          | 0 / 0.000                      | 91 / 5.581                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2020                                                                                             |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 84 / 5.060                     | - / -                                                                               | - / -                          | 0 / 0.000                      | 84 / 5.060                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2021                                                                                             |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | 73 / 4.397                                                                          | - / -                          | 0 / 0.000                      | 73 / 4.397                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2022                                                                                             |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | 83 / 5.000                     | 0 / 0.000                      | 83 / 5.000                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| FY 2023                                                                                             |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | Continuing                     | Continuing                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| To Complete                                                                                         |            | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | Continuing                     | Continuing                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| Total                                                                                               |            | 224 / 32.491                   | 141 / 13.789                   | 111 / 11.043                   | 46 / 3.784                     | 0 / 0.000                      | 46 / 3.784                     | 91 / 5.581                     | 84 / 5.060                     | 73 / 4.397                                                                          | 83 / 5.000                     | Continuing                     | Continuing                     |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
| <b>Installation Schedule</b>                                                                        |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           |                                    |            |  |  |  |  |  |  |  |  |
|                                                                                                     | <b>PYS</b> | <b>FY 2017</b>                 |                                |                                |                                | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                                                                      |                                |                                |                                | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                                        |           | <b>FY 2022</b> |           |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b>                          | <b>Tot</b> |  |  |  |  |  |  |  |  |
|                                                                                                     |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                                                           | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                                              | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |                                    |            |  |  |  |  |  |  |  |  |
| In                                                                                                  | 205        | 19                             | 33                             | 20                             | 23                             | 65                             | 39                             | 33                             | 34                             | 5                                                                                   | 20                             | 14                             | 12                             | 25             | 21                     | 26        | 19        | 20             | 25        | 23                                                                                     | 16        | 17             | 23        | 22        | 11        | 16             | 24        | 30        | 13        | Cont.                              | Cont.      |  |  |  |  |  |  |  |  |
| Out                                                                                                 | 203        | 21                             | 33                             | 20                             | 23                             | 65                             | 39                             | 33                             | 34                             | 5                                                                                   | 20                             | 14                             | 12                             | 25             | 21                     | 26        | 19        | 20             | 25        | 23                                                                                     | 16        | 17             | 23        | 22        | 11        | 16             | 24        | 30        | 13        | Cont.                              | Cont.      |  |  |  |  |  |  |  |  |
| <b>Method of Implementation (Organic):</b> In-Line Network Encryptors (INE)                         |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           | <b>Installation Quantity:</b> 0    |            |  |  |  |  |  |  |  |  |
| <b>Method of Implementation (Organic):</b> Advanced Cryptographic Capability (ACC)                  |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           | <b>Installation Quantity:</b> 36   |            |  |  |  |  |  |  |  |  |
| <b>Method of Implementation (Organic):</b> KGV-11M Transmission Security (TRANSEC)                  |            |                                |                                |                                |                                |                                |                                |                                |                                |                                                                                     |                                |                                |                                |                |                        |           |           |                |           |                                                                                        |           |                |           |           |           |                |           |           |           | <b>Installation Quantity:</b> 1671 |            |  |  |  |  |  |  |  |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     | <b>Date:</b> February 2018                                                             |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) | <b>Modification Number / Title:</b><br>3 / Navy Cryptography (Crypto) - Afloat (DA071) |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                     | <b>MDAP/MAIS Code:</b>                                                                 |
| <b>Footnotes:</b><br><sup>(17)</sup> VINSON/Advanced Narrowband Digital Voice Terminal (ANDVT) Crypto Modernization (VACM) (NonOrganic) - FY19 increase in quantities is required to meet mandated National Security Agency (NSA) cease key dates (December 31, 2020). VACM NonOrganic quantities are grouped per ship set/platform. Procurement profile aligns to fielding plan and type of platform requiring installation; Top Secret platforms are the priority and then Secret.<br><sup>(18)</sup> Advanced Cryptographic Capability (ACC) - FY19 increase is for the initial procurement of ACC to meet the NSA mandated cryptographic security software modernization of various communications security devices.<br><sup>(19)</sup> Production support - FY19 increase aligns to increase in VACM and ACC procurements.<br><sup>(20)</sup> Design Service Allocation (DSA) - FY19 decrease is due to completion of KW-46 fielding, which accounts for majority of DSA costs.<br><sup>(21)</sup> Advanced Cryptographic Capability (ACC) - Contract not awarded - Vendor is TBD. |                                                                                     |                                                                                        |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                                     |  | <b>Date:</b> February 2018 |  |                                                                                        |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |  |                            |  | <b>Modification Number / Title:</b><br>4 / Navy Cryptography (Crypto) - Ashore (DA071) |  |  |  |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 38.837      | 10.849  | 6.735   | 38.353       | 0.000       | 38.353          | 34.728  | 29.842  | 33.678  | 33.489  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 38.837      | 10.849  | 6.735   | 38.353       | 0.000       | 38.353          | 34.728  | 29.842  | 33.678  | 33.489  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 38.837      | 10.849  | 6.735   | 38.353       | 0.000       | 38.353          | 34.728  | 29.842  | 33.678  | 33.489  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

The Navy Cryptography (Crypto) ashore equipment includes: Families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories for all Services. Navy Crypto Ashore sites include: United States Navy (USN), United States Marine Corps (USMC), United States Coast Guard (USCG) facilities, Ballistic Missile Defense (BMD) facilities, production/integration sites, and training sites.

Crypto Data products include Advanced Cryptographic Capability (ACC), which provide National Security Agency (NSA) mandated cryptographic security software modernization of various communications security devices by cease key dates(details held at a higher classification).

Crypto Voice products include VINSON/Advanced Narrowband Digital Voice Terminal (ANDVT) Cryptographic Modernization (VACM).

Space and Naval Warfare Systems Command (SPAWAR) is the VACM Central Procuring Agency for the USN to include the Military Sealift Command (MSC), Naval Air Systems Command (NAVAIR), USMC and USCG.

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|----------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                                          |                                |                                |                                |                                                                              |                                |                                |                                | Date: February 2018                                                             |                                |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                    |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                | Modification Number / Title:<br>4 / Navy Cryptography (Crypto) - Ashore (DA071) |                                |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                                             |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                                                                 |                                |                                |                                |                                |  |
| Models of Systems Affected: Shore                                                            |                                |                                |                                | Modification Type: Initial                                                   |                                |                                |                                | Related RDT&E PEs: 0303140N                                                     |                                |                                |                                |                                |  |
| Financial Plan                                                                               | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                         | FY 2022                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                                                  |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Navy Cryptography (Crypto) - Ashore (DA071)                        |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| B Kits                                                                                       |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Recurring                                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| 1.1.1) VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM) - Organic <sup>(22)</sup> | 1,727 / 19.611                 | 759 / 8.729                    | 367 / 4.221                    | 1,242 / 14.283                                                               | - / -                          | 1,242 / 14.283                 | 1,160 / 13.340                 | 1,122 / 12.903                                                                  | 1,208 / 13.892                 | 1,233 / 14.180                 | Continuing                     | Continuing                     |  |
| 1.1.2) Advanced Cryptographic Capability (ACC) - Organic <sup>(23)</sup>                     | - / -                          | - / -                          | - / -                          | 16 / 8.000                                                                   | - / -                          | 16 / 8.000                     | 9 / 4.500                      | 5 / 2.500                                                                       | 6 / 3.000                      | 6 / 3.000                      | Continuing                     | Continuing                     |  |
| 1.1.3) VACM - NonOrganic <sup>(24)</sup>                                                     | 19 / 7.315                     | - / -                          | 6 / 2.310                      | 37 / 14.245                                                                  | - / -                          | 37 / 14.245                    | 32 / 12.320                    | 27 / 10.395                                                                     | 34 / 13.090                    | 31 / 11.935                    | Continuing                     | Continuing                     |  |
| Subtotal: Recurring                                                                          | - / 26.926                     | - / 8.729                      | - / 6.531                      | - / 36.528                                                                   | - / -                          | - / 36.528                     | - / 30.160                     | - / 25.798                                                                      | - / 29.982                     | - / 29.115                     | Continuing                     | Continuing                     |  |
| Subtotal: Navy Cryptography (Crypto) - Ashore (DA071)                                        | 1,746 / 26.926                 | 759 / 8.729                    | 373 / 6.531                    | 1,295 / 36.528                                                               | - / -                          | 1,295 / 36.528                 | 1,201 / 30.160                 | 1,154 / 25.798                                                                  | 1,248 / 29.982                 | 1,270 / 29.115                 | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                                                | - / 26.926                     | - / 8.729                      | - / 6.531                      | - / 36.528                                                                   | - / -                          | - / 36.528                     | - / 30.160                     | - / 25.798                                                                      | - / 29.982                     | - / 29.115                     | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                                             |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| 2.1) Production Support <sup>(25)</sup>                                                      | - / 11.911                     | - / 0.297                      | - / 0.204                      | - / 1.232                                                                    | - / -                          | - / 1.232                      | - / 1.021                      | - / 0.880                                                                       | - / 1.026                      | - / 1.012                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                                            | - / 11.911                     | - / 0.297                      | - / 0.204                      | - / 1.232                                                                    | - / -                          | - / 1.232                      | - / 1.021                      | - / 0.880                                                                       | - / 1.026                      | - / 1.012                      | Continuing                     | Continuing                     |  |
| Installation                                                                                 |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Modification Item 1 of 1: Navy Cryptography (Crypto) - Ashore (DA071)                        | - / 0.000                      | - / 1.823                      | - / 0.000                      | - / 0.593                                                                    | - / 0.000                      | - / 0.593                      | - / 3.547                      | - / 3.164                                                                       | - / 2.670                      | - / 3.362                      | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                                       | - / 0.000                      | - / 1.823                      | - / -                          | - / 0.593                                                                    | - / -                          | - / 0.593                      | - / 3.547                      | - / 3.164                                                                       | - / 2.670                      | - / 3.362                      | Continuing                     | Continuing                     |  |
| Total                                                                                        |                                |                                |                                |                                                                              |                                |                                |                                |                                                                                 |                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                                            | 38.837                         | 10.849                         | 6.735                          | 38.353                                                                       | 0.000                          | 38.353                         | 34.728                         | 29.842                                                                          | 33.678                         | 33.489                         | Continuing                     | Continuing                     |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                          |                                |                                |                                |                                                                                     |                                |                                     |                                | <b>Date:</b> February 2018                                                             |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                    |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                |                                     |                                | <b>Modification Number / Title:</b><br>4 / Navy Cryptography (Crypto) - Ashore (DA071) |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                             |                                |                                |                                |                                                                                     |                                | <b>MDAP/MAIS Code:</b>              |                                |                                                                                        |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> Navy Cryptography (Crypto) - Ashore (DA071)                        |                                |                                |                                |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                                     |                                |                                |                                |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| Manufacturer Name: VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM) - Raytheon (USAF)    |                                |                                |                                |                                                                                     |                                | Manufacturer Location: Largo, FL    |                                |                                                                                        |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 2                                                              |                                |                                |                                |                                                                                     |                                | Production Leadtime (in Months): 12 |                                |                                                                                        |                                |                                |                                |                                |
| <b>Dates</b>                                                                                        | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                      | <b>FY 2023</b>                 |                                                                                        |                                |                                |                                |                                |
| Contract Dates                                                                                      | Dec 2016                       | Dec 2017                       | Dec 2018                       |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| Delivery Dates                                                                                      | Dec 2017                       | Dec 2018                       | Dec 2019                       |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| Manufacturer Name: Advanced Cryptographic Capability (ACC) - TBD <sup>(26)</sup>                    |                                |                                |                                |                                                                                     |                                | Manufacturer Location: TBD          |                                |                                                                                        |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 3                                                              |                                |                                |                                |                                                                                     |                                | Production Leadtime (in Months): 7  |                                |                                                                                        |                                |                                |                                |                                |
| <b>Dates</b>                                                                                        | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                      | <b>FY 2023</b>                 |                                                                                        |                                |                                |                                |                                |
| Contract Dates                                                                                      |                                |                                | Jan 2019                       |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| Delivery Dates                                                                                      |                                |                                | Aug 2019                       |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| <b>Installation Information</b>                                                                     |                                |                                |                                |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| <b>Method of Implementation:</b> Installed:: Installation Name: Navy Cryptography (Crypto) - Ashore |                                |                                |                                |                                                                                     |                                |                                     |                                |                                                                                        |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>                | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                         | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                                     | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                         | - / -                          | 19 / 1.823                     | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | - / -                                                                                  | - / -                          | - / -                          | 0 / 0.000                      | 19 / 1.823                     |
| FY 2017                                                                                             | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | - / -                                                                                  | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                                             | - / -                          | - / -                          | - / -                          | 6 / 0.593                                                                           | 0 / 0.000                      | 6 / 0.593                           | - / -                          | - / -                                                                                  | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.593                      |
| FY 2019                                                                                             | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | 37 / 3.547                     | - / -                                                                                  | - / -                          | - / -                          | 0 / 0.000                      | 37 / 3.547                     |
| FY 2020                                                                                             | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | 32 / 3.164                                                                             | - / -                          | - / -                          | 0 / 0.000                      | 32 / 3.164                     |
| FY 2021                                                                                             | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | - / -                                                                                  | 27 / 2.670                     | - / -                          | 0 / 0.000                      | 27 / 2.670                     |
| FY 2022                                                                                             | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | - / -                                                                                  | - / -                          | 34 / 3.362                     | 0 / 0.000                      | 34 / 3.362                     |
| FY 2023                                                                                             | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | - / -                                                                                  | - / -                          | - / -                          | Continuing                     | Continuing                     |
| To Complete                                                                                         | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                               | - / -                          | - / -                                                                                  | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total                                                                                               | - / -                          | 19 / 1.823                     | - / -                          | 6 / 0.593                                                                           | 0 / 0.000                      | 6 / 0.593                           | 37 / 3.547                     | 32 / 3.164                                                                             | 27 / 2.670                     | 34 / 3.362                     | Continuing                     | Continuing                     |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|----|----|----|---------|----|----|----|---------|-------------------------------------------------------------------------------------|----|----|---------|----|----|------------------------|---------|----|----|----|----------------------------------------------------------------------------------------|---------------------------------|----|----|---------|----|----|----|-------|-------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        | <b>Date:</b> February 2018      |    |    |         |    |    |    |       |       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |         |    |    |    |         |    |    |    |         | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |    |    |         |    |    |                        |         |    |    |    | <b>Modification Number / Title:</b><br>4 / Navy Cryptography (Crypto) - Ashore (DA071) |                                 |    |    |         |    |    |    |       |       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    | <b>MDAP/MAIS Code:</b> |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
| <b>Modification Item 1 of 1:</b> Navy Cryptography (Crypto) - Ashore (DA071)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
| <b>Method of Implementation:</b> Installed:: Installation Name: Navy Cryptography (Crypto) - Ashore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PYS | FY 2017 |    |    |    | FY 2018 |    |    |    | FY 2019 |                                                                                     |    |    | FY 2020 |    |    |                        | FY 2021 |    |    |    | FY 2022                                                                                |                                 |    |    | FY 2023 |    |    |    | TC    | Tot   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     | Q1      | Q2 | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 | Q1      | Q2                                                                                  | Q3 | Q4 | Q1      | Q2 | Q3 | Q4                     | Q1      | Q2 | Q3 | Q4 | Q1                                                                                     | Q2                              | Q3 | Q4 | Q1      | Q2 | Q3 | Q4 |       |       |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -   | -       | -  | -  | 9  | 10      | -  | -  | -  | -       | 6                                                                                   | -  | -  | -       | 26 | 6  | 5                      | -       | 9  | 22 | 1  | -                                                                                      | 27                              | -  | -  | -       | 34 | -  | -  | Cont. | Cont. |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -   | -       | -  | -  | 9  | 10      | -  | -  | -  | -       | 6                                                                                   | -  | -  | -       | 26 | 6  | 5                      | -       | 9  | 22 | 1  | -                                                                                      | 27                              | -  | -  | -       | 34 | -  | -  | Cont. | Cont. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
| <b>Method of Implementation (Organic):</b> VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        | <b>Installation Quantity:</b> 0 |    |    |         |    |    |    |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |
| <b>Method of Implementation (Organic):</b> Advanced Cryptographic Capability (ACC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        | <b>Installation Quantity:</b> 0 |    |    |         |    |    |    |       |       |
| <p><b>Footnotes:</b></p> <p><sup>(22)</sup> VINSON/Advanced Narrowband Digital Voice Terminal (ANDVT) Crypto Modernization (VACM) (Organic) - FY19 increase in quantities is required to meet mandated National Security Agency (NSA) cease key dates (December 31, 2020). Organic quantities are per device, not shore site. Procurement profile aligns to site requirements; Top Secret sites are the priority and then Secret.</p> <p><sup>(23)</sup> Advanced Cryptographic Capability (ACC) - FY19 increase is for the initial procurement of ACC to meet the NSA mandated cryptographic security software modernization of various communications security devices.</p> <p><sup>(24)</sup> VACM (NonOrganic) - FY19 increase in quantities is required to meet mandated NSA cease key dates (December 31,2020). NonOrganic quantities are grouped per shore site, not by device. Procurement profile aligns to fielding plan and type of site requiring installation; Top Secret sites are the priority and then Secret.</p> <p><sup>(25)</sup> Production support - FY19 increase aligns to increase in VACM and ACC procurements.</p> <p><sup>(26)</sup> Advanced Cryptographic Capability (ACC) - Contract not awarded - Vendor is TBD.</p> |     |         |    |    |    |         |    |    |    |         |                                                                                     |    |    |         |    |    |                        |         |    |    |    |                                                                                        |                                 |    |    |         |    |    |    |       |       |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-------------------------------------------------------------------------------------|--------------------|----------------------|------------------------|----------------|----------------|---------------------------------------------------------------------------------|--------------------|-------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                                                                     |                    |                      |                        |                |                | <b>Date:</b> February 2018                                                      |                    |                   |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                |                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                    |                      |                        |                |                | <b>Modification Number / Title:</b><br>5 / Key Management (KM) - Afloat (DA005) |                    |                   |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                |                |                                                                                     |                    |                      | <b>MDAP/MAIS Code:</b> |                |                |                                                                                 |                    |                   |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                                                                 | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>         | <b>FY 2021</b> | <b>FY 2022</b> | <b>FY 2023</b>                                                                  | <b>To Complete</b> | <b>Total</b>      |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -                  | -              | -              | -                                                                                   | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 71.405             | 9.009          | 5.242          | 5.073                                                                               | 0.000              | 5.073                | 5.763                  | 8.160          | 8.550          | 7.052                                                                           | Continuing         | Continuing        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                                   | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 71.405             | 9.009          | 5.242          | 5.073                                                                               | 0.000              | 5.073                | 5.763                  | 8.160          | 8.550          | 7.052                                                                           | Continuing         | Continuing        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -                  | -              | -              | -                                                                                   | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>71.405</b>      | <b>9.009</b>   | <b>5.242</b>   | <b>5.073</b>                                                                        | <b>0.000</b>       | <b>5.073</b>         | <b>5.763</b>           | <b>8.160</b>   | <b>8.550</b>   | <b>7.052</b>                                                                    | <b>Continuing</b>  | <b>Continuing</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                                                                     |                    |                      |                        |                |                |                                                                                 |                    |                   |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                                   | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  | -              | -              | -                                                                                   | -                  | -                    | -                      | -              | -              | -                                                                               | -                  | -                 |
| <p><b>Description:</b></p> <p>Key Management (KM) is a collection of Tier 2 security equipment, Key Management Infrastructure (KMI), and Tier 3 equipment Simple Key Loader (SKL).</p> <p>KMI is the next generation Tier 2 product to replace the legacy Local Management Device/Key Processor (LMD/KP) Electronic Key Management System (EKMS). KMI includes the Management Client (MGC), Advanced Key Processor (AKP) and High Assurance Internet Protocol Equipment (HAiPE) devices. KMI provides a net-centric, web based architecture for the ordering, management and distribution of all cryptographic key material to support Navy users.</p> <p>The AN/PYQ-10 SKL is a ruggedized, portable, hand-held fill device, for securely receiving, storing, and transferring data between compatible cryptographic and communications equipment. The SKL is backward-compatible with existing End Cryptographic Units (ECU) and forward-compatible with future security equipment and systems, including KMI.</p> <p>KMI Tech Refresh is a hardware and software upgrade to KMI Spiral 2 that is mandated by National Security Agency (NSA) to occur every five-years.</p> |                    |                |                |                                                                                     |                    |                      |                        |                |                |                                                                                 |                    |                   |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                | <b>Date:</b> February 2018                                                      |                                |                                |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                |                                        |                                | <b>Modification Number / Title:</b><br>5 / Key Management (KM) - Afloat (DA005) |                                |                                |  |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                                     |                                |                                |                                | <b>MDAP/MAIS Code:</b>                 |                                |                                                                                 |                                |                                |  |
| <b>Models of Systems Affected:</b> Ship                                          |                                |                                |                                | <b>Modification Type:</b> Various                                                   |                                |                                |                                | <b>Related RDT&amp;E PEs:</b> 0303140N |                                |                                                                                 |                                |                                |  |
| <b>Financial Plan</b>                                                            | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                         | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                  | <b>To Complete</b>             | <b>Total</b>                   |  |
|                                                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)         | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| <b>Procurement</b>                                                               |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| <i><b>Modification Item 1 of 1:</b></i> Key Management (KM) - Afloat (DA005)     |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| B Kits                                                                           |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| Recurring                                                                        |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| 1.1.1) KMI Spiral 2 - NonOrganic                                                 | 200 / 5.358                    | 21 / 0.565                     | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                                  | - / -                          | - / -                                                                           | - / -                          | 221 / 5.923                    |  |
| 1.1.2) Simple Key Loader (SKL) - Organic <sup>(27)</sup>                         | 7,915 / 40.715                 | 1,037 / 3.650                  | 1,246 / 4.402                  | 659 / 2.333                                                                         | - / -                          | 659 / 2.333                    | 190 / 0.674                    | 171 / 0.608                            | 720 / 2.566                    | 1,125 / 4.017                                                                   | Continuing                     | Continuing                     |  |
| 1.1.3) KMI Tech Refresh - NonOrganic <sup>(28)</sup>                             | - / -                          | - / -                          | 3 / 0.102                      | 28 / 0.959                                                                          | - / -                          | 28 / 0.959                     | 41 / 1.408                     | 59 / 2.033                             | 37 / 1.278                     | 19 / 0.657                                                                      | Continuing                     | Continuing                     |  |
| <i>Subtotal: Recurring</i>                                                       | - / 46.073                     | - / 4.215                      | - / 4.504                      | - / 3.292                                                                           | - / -                          | - / 3.292                      | - / 2.082                      | - / 2.641                              | - / 3.844                      | - / 4.674                                                                       | Continuing                     | Continuing                     |  |
| <i>Subtotal: Key Management (KM) - Afloat (DA005)</i>                            | 8,115 / 46.073                 | 1,058 / 4.215                  | 1,249 / 4.504                  | 687 / 3.292                                                                         | - / -                          | 687 / 3.292                    | 231 / 2.082                    | 230 / 2.641                            | 757 / 3.844                    | 1,144 / 4.674                                                                   | Continuing                     | Continuing                     |  |
| <i>Subtotal: Procurement, All Modification Items</i>                             | - / 46.073                     | - / 4.215                      | - / 4.504                      | - / 3.292                                                                           | - / -                          | - / 3.292                      | - / 2.082                      | - / 2.641                              | - / 3.844                      | - / 4.674                                                                       | Continuing                     | Continuing                     |  |
| <b>Support (All Modification Items)</b>                                          |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| 2.1) Production Support                                                          | - / 2.761                      | - / 0.148                      | - / 0.164                      | - / 0.119                                                                           | - / -                          | - / 0.119                      | - / 0.077                      | - / 0.093                              | - / 0.132                      | - / 0.148                                                                       | Continuing                     | Continuing                     |  |
| 2.2) Train the Trainer                                                           | - / 0.204                      | - / 0.096                      | - / 0.136                      | - / 0.087                                                                           | - / -                          | - / 0.087                      | - / 0.041                      | - / 0.088                              | - / 0.099                      | - / 0.105                                                                       | Continuing                     | Continuing                     |  |
| 2.3) DSA <sup>(29)</sup>                                                         | - / 12.526                     | - / 0.800                      | - / 0.388                      | - / 1.125                                                                           | - / -                          | - / 1.125                      | - / 2.213                      | - / 2.838                              | - / 1.525                      | - / 1.025                                                                       | Continuing                     | Continuing                     |  |
| <i>Subtotal: Support</i>                                                         | - / 15.491                     | - / 1.044                      | - / 0.688                      | - / 1.331                                                                           | - / -                          | - / 1.331                      | - / 2.331                      | - / 3.019                              | - / 1.756                      | - / 1.278                                                                       | Continuing                     | Continuing                     |  |
| <b>Installation</b>                                                              |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| <i><b>Modification Item 1 of 1:</b></i> Key Management (KM) - Afloat (DA005)     | - / 9.841                      | - / 3.750                      | - / 0.050                      | - / 0.450                                                                           | - / 0.000                      | - / 0.450                      | - / 1.350                      | - / 2.500                              | - / 2.950                      | - / 1.100                                                                       | Continuing                     | Continuing                     |  |
| <i>Subtotal: Installation</i>                                                    | - / 9.841                      | - / 3.750                      | - / 0.050                      | - / 0.450                                                                           | - / -                          | - / 0.450                      | - / 1.350                      | - / 2.500                              | - / 2.950                      | - / 1.100                                                                       | Continuing                     | Continuing                     |  |
| <b>Total</b>                                                                     |                                |                                |                                |                                                                                     |                                |                                |                                |                                        |                                |                                                                                 |                                |                                |  |
| <b>Total Cost (Procurement + Support + Installation)</b>                         | <b>71.405</b>                  | <b>9.009</b>                   | <b>5.242</b>                   | <b>5.073</b>                                                                        | <b>0.000</b>                   | <b>5.073</b>                   | <b>5.763</b>                   | <b>8.160</b>                           | <b>8.550</b>                   | <b>7.052</b>                                                                    | <b>Continuing</b>              | <b>Continuing</b>              |  |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |                                |                                |                                |                                |                                                                                     |                                       |                                |                                |                                | <b>Date:</b> February 2018                                                      |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15             |                                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                       |                                |                                |                                | <b>Modification Number / Title:</b><br>5 / Key Management (KM) - Afloat (DA005) |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |                                |                                |                                |                                |                                                                                     |                                       |                                | <b>MDAP/MAIS Code:</b>         |                                |                                                                                 |                                |                                |
| <b>Modification Item 1 of 1:</b> Key Management (KM) - Afloat (DA005)                        |                                |                                |                                |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| <b>Manufacturer Information</b>                                                              |                                |                                |                                |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| Manufacturer Name: Simple Key Loader (SKL) - Sierra Nevada Corporation                       |                                |                                |                                |                                |                                                                                     | Manufacturer Location: Sparks, NV     |                                |                                |                                |                                                                                 |                                |                                |
| Administrative Leadtime (in Months): 4                                                       |                                |                                |                                |                                |                                                                                     | Production Leadtime (in Months): 2    |                                |                                |                                |                                                                                 |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                      | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                |                                |                                                                                 |                                |                                |
| Contract Dates                                                                               | Feb 2017                       | Feb 2018                       | Feb 2019                       |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| Delivery Dates                                                                               | Apr 2017                       | Apr 2018                       | Apr 2019                       |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| Manufacturer Name: Key Management Infrastructure (KMI) Spiral 2 - NSA                        |                                |                                |                                |                                |                                                                                     | Manufacturer Location: Fort Meade, MD |                                |                                |                                |                                                                                 |                                |                                |
| Administrative Leadtime (in Months): 5                                                       |                                |                                |                                |                                |                                                                                     | Production Leadtime (in Months): 4    |                                |                                |                                |                                                                                 |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                      | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                |                                |                                                                                 |                                |                                |
| Contract Dates                                                                               | Mar 2017                       |                                |                                |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| Delivery Dates                                                                               | Jul 2017                       |                                |                                |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| Manufacturer Name: Key Management Infrastructure (KMI) Tech Refresh - NSA                    |                                |                                |                                |                                |                                                                                     | Manufacturer Location: Fort Meade, MD |                                |                                |                                |                                                                                 |                                |                                |
| Administrative Leadtime (in Months): 5                                                       |                                |                                |                                |                                |                                                                                     | Production Leadtime (in Months): 4    |                                |                                |                                |                                                                                 |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                      | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                |                                |                                                                                 |                                |                                |
| Contract Dates                                                                               |                                | Mar 2018                       | Mar 2019                       |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| Delivery Dates                                                                               |                                | Jul 2018                       | Jul 2019                       |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| <b>Installation Information</b>                                                              |                                |                                |                                |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| <b>Method of Implementation:</b> Installed:: Installation Name: Key Management (KM) - Afloat |                                |                                |                                |                                |                                                                                     |                                       |                                |                                |                                |                                                                                 |                                |                                |
| <b>Installation Cost</b>                                                                     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>            | <b>FY 2019 OCO</b>                                                                  | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                 | <b>FY 2023</b>                                                                  | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                  | 156 / 9.841                    | 44 / 2.700                     | - / -                          | - / -                          | - / -                                                                               | - / -                                 | - / -                          | - / -                          | - / -                          | - / -                                                                           | 0 / 0.000                      | 200 / 12.541                   |
| FY 2017                                                                                      | - / -                          | 21 / 1.050                     | - / -                          | - / -                          | - / -                                                                               | - / -                                 | - / -                          | - / -                          | - / -                          | - / -                                                                           | 0 / 0.000                      | 21 / 1.050                     |
| FY 2018                                                                                      | - / -                          | - / -                          | 1 / 0.050                      | 2 / 0.100                      | 0 / 0.000                                                                           | 2 / 0.100                             | - / -                          | - / -                          | - / -                          | - / -                                                                           | 0 / 0.000                      | 3 / 0.150                      |
| FY 2019                                                                                      | - / -                          | - / -                          | - / -                          | 7 / 0.350                      | 0 / 0.000                                                                           | 7 / 0.350                             | 21 / 0.950                     | - / -                          | - / -                          | - / -                                                                           | 0 / 0.000                      | 28 / 1.300                     |
| FY 2020                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                                 | 8 / 0.400                      | 33 / 1.650                     | - / -                          | - / -                                                                           | 0 / 0.000                      | 41 / 2.050                     |
| FY 2021                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                                 | - / -                          | 17 / 0.850                     | 42 / 2.050                     | - / -                                                                           | 0 / 0.000                      | 59 / 2.900                     |
| FY 2022                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                                 | - / -                          | - / -                          | 21 / 0.900                     | 16 / 0.750                                                                      | 0 / 0.000                      | 37 / 1.650                     |
| FY 2023                                                                                      | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                                 | - / -                          | - / -                          | - / -                          | 7 / 0.350                                                                       | Continuing                     | Continuing                     |
| To Complete                                                                                  | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                                 | - / -                          | - / -                          | - / -                          | - / -                                                                           | Continuing                     | Continuing                     |
| Total                                                                                        | 156 / 9.841                    | 65 / 3.750                     | 1 / 0.050                      | 9 / 0.450                      | 0 / 0.000                                                                           | 9 / 0.450                             | 29 / 1.350                     | 50 / 2.500                     | 63 / 2.950                     | 23 / 1.100                                                                      | Continuing                     | Continuing                     |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                | <b>Date:</b> February 2018      |           |           |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                |           |           |           |                |           |           |           | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |           |           |           |                |                        |           |           |                |           | <b>Modification Number / Title:</b><br>5 / Key Management (KM) - Afloat (DA005) |           |                |                                 |           |           |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                | <b>MDAP/MAIS Code:</b> |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> Key Management (KM) - Afloat (DA005)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Installed:: Installation Name: Key Management (KM) - Afloat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>PYS</b> | <b>FY 2017</b> |           |           |           | <b>FY 2018</b> |           |           |           | <b>FY 2019</b>                                                                      |           |           |           | <b>FY 2020</b> |                        |           |           | <b>FY 2021</b> |           |                                                                                 |           | <b>FY 2022</b> |                                 |           |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                                           | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>              | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b>                                                                       | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b>                       | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 134        | 22             | 16        | 22        | 16        | 11             | -         | -         | 1         | -                                                                                   | 1         | 1         | 7         | -              | 9                      | 6         | 14        | -              | 8         | 18                                                                              | 24        | -              | 21                              | 16        | 26        | -              | 13        | 2         | 8         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 130        | 26             | 15        | 20        | 17        | 12             | 1         | -         | 1         | -                                                                                   | 1         | 1         | 4         | 3              | 9                      | 6         | 13        | 1              | 7         | 18                                                                              | 23        | 2              | 21                              | 15        | 24        | 3              | 12        | 3         | 7         | Cont.     | Cont.      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |
| <b>Method of Implementation (Organic):</b> Simple Key Loader (SKL) - Not Installed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                | <b>Installation Quantity:</b> 0 |           |           |                |           |           |           |           |            |
| <b>Footnotes:</b><br><sup>(27)</sup> Simple Key Loaders (SLK) - FY19 decrease is due to the attrition rate caused by the seven-year battery life span. SKL procurements are required to replenish the fleet with key-fill devices required to conduct secure, mission-critical communications. Quantities fluctuate to remain within the Inventory Objective Capability (IOC).<br><sup>(28)</sup> Key Management Infrastructure (KMI) Tech Refresh - FY19 increase is the result of National Security Agency (NSA) mandated five-year refresh cycle. KMI Tech Refresh modernizes all KMI Spiral 2 systems. Unit cost increase from Spiral 2 to KMI Tech Refresh are due to change in hardware.<br><sup>(29)</sup> Design Services Allocation (DSA) - FY19 increase aligns to the fielding of KMI Tech Refresh. |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |                        |           |           |                |           |                                                                                 |           |                |                                 |           |           |                |           |           |           |           |            |



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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |  |  |  |                                                                                     |  | <b>Date:</b> February 2018 |  |                                                                                 |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |  |                            |  | <b>Modification Number / Title:</b><br>6 / Key Management (KM) - Ashore (DA005) |  |  |  |

|                                                         |  |  |  |  |  |                        |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) : |  |  |  |  |  | <b>MDAP/MAIS Code:</b> |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|------------------------|--|--|--|--|--|

| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|-------------|------------|
| Procurement Quantity ( <i>Units in Each</i> )                                                                                          | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                     | 66.656      | 3.248   | 4.803   | 6.212        | 0.000       | 6.212         | 5.910   | 3.604   | 3.448   | 5.201   | Continuing  | Continuing |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                        | 66.656      | 3.248   | 4.803   | 6.212        | 0.000       | 6.212         | 5.910   | 3.604   | 3.448   | 5.201   | Continuing  | Continuing |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                  | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority ( <i>\$ in Millions</i> )                                                                                   | 66.656      | 3.248   | 4.803   | 6.212        | 0.000       | 6.212         | 5.910   | 3.604   | 3.448   | 5.201   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |               |         |         |         |         |             |            |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                               | -           | -       | -       | -            | -           | -             | -       | -       | -       | -       | -           | -          |

**Description:**

Key Management (KM) ashore sites include: United States Navy (USN), United States Marine Corps (USMC), United States Coast Guard (USCG) facilities, production integration sites, and training sites. KM ashore systems include: Simple Key Loader (SKL), Key Management Infrastructure (KMI) Spiral 1 & 2 and KMI Tech Refresh.

KMI is the next generation Tier 2 product to replace the legacy Local Management Device/Key Processor (LMD/KP) Electronic Key Management System (EKMS). KMI includes the Management Client (MGC), Advanced Key Processor (AKP) and High Assurance Internet Protocol Equipment (HAIZE) devices. KMI provides a net-centric, web based architecture for the ordering, management and distribution of all cryptographic key material to support Navy users.

The AN/PYQ-10 SKL is a ruggedized, portable, hand-held fill device, for securely receiving, storing, and transferring data between compatible cryptographic and communications equipment. The SKL is backward-compatible with existing End Cryptographic Units (ECU) and forward-compatible with future security equipment and systems, including KMI.

KMI Tech Refresh is a hardware and software upgrade to KMI Spiral 2 that is mandated by National Security Agency (NSA) to occur every five-years.

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                              |                                |                                |                                | Date: February 2018                                                      |                                |                                |                                |                                |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15 |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                | Modification Number / Title:<br>6 / Key Management (KM) - Ashore (DA005) |                                |                                |                                |                                |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                                                          |                                |                                |                                |                                |            |
| Models of Systems Affected: Shore                                         |                                |                                |                                | Modification Type: Various                                                   |                                |                                |                                | Related RDT&E PEs: 0303140N                                              |                                |                                |                                |                                |            |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                                  | FY 2022                        | FY 2023                        | To Complete                    | Total                          |            |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |            |
| Procurement                                                               |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| Modification Item 1 of 1: Key Management (KM) - Ashore (DA005)            |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| B Kits                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| Recurring                                                                 |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| 1.1.1) KMI Spiral 1&2 - NonOrganic                                        |                                | 481 / 12.779                   | - / -                          | - / -                                                                        | - / -                          | - / -                          | - / -                          | - / -                                                                    | - / -                          | - / -                          | - / -                          | 481 / 12.779                   |            |
| 1.1.2) Simple Key Loader (SKL) - Organic <sup>(30)</sup>                  |                                | 9,525 / 28.180                 | 788 / 2.774                    | 1,207 / 4.264                                                                | 574 / 2.032                    | - / -                          | 574 / 2.032                    | 102 / 0.362                                                              | 160 / 0.569                    | 712 / 2.538                    | 1,323 / 4.724                  | Continuing                     | Continuing |
| 1.1.3) KMI Tech Refresh - NonOrganic <sup>(31)</sup>                      |                                | - / -                          | - / -                          | 6 / 0.205                                                                    | 67 / 2.295                     | - / -                          | 67 / 2.295                     | 64 / 2.197                                                               | 65 / 2.240                     | 16 / 0.553                     | 4 / 0.138                      | Continuing                     | Continuing |
| Subtotal: Recurring                                                       |                                | - / 40.959                     | - / 2.774                      | - / 4.469                                                                    | - / 4.327                      | - / -                          | - / 4.327                      | - / 2.559                                                                | - / 2.809                      | - / 3.091                      | - / 4.862                      | Continuing                     | Continuing |
| Subtotal: Key Management (KM) - Ashore (DA005)                            |                                | 10,006 / 40.959                | 788 / 2.774                    | 1,213 / 4.469                                                                | 641 / 4.327                    | - / -                          | 641 / 4.327                    | 166 / 2.559                                                              | 225 / 2.809                    | 728 / 3.091                    | 1,327 / 4.862                  | Continuing                     | Continuing |
| Subtotal: Procurement, All Modification Items                             |                                | - / 40.959                     | - / 2.774                      | - / 4.469                                                                    | - / 4.327                      | - / -                          | - / 4.327                      | - / 2.559                                                                | - / 2.809                      | - / 3.091                      | - / 4.862                      | Continuing                     | Continuing |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| 2.1) Production Support                                                   |                                | - / 3.855                      | - / 0.102                      | - / 0.148                                                                    | - / 0.160                      | - / -                          | - / 0.160                      | - / 0.086                                                                | - / 0.100                      | - / 0.110                      | - / 0.175                      | Continuing                     | Continuing |
| 2.2) Train the Trainer                                                    |                                | - / 0.249                      | - / 0.172                      | - / 0.102                                                                    | - / 0.135                      | - / -                          | - / 0.135                      | - / 0.065                                                                | - / 0.092                      | - / 0.097                      | - / 0.117                      | Continuing                     | Continuing |
| 2.3) Pre-Design Install Planning <sup>(32)</sup>                          |                                | - / 6.643                      | - / -                          | - / 0.084                                                                    | - / 1.415                      | - / -                          | - / 1.415                      | - / 0.250                                                                | - / 0.103                      | - / -                          | - / 0.047                      | - / -                          | - / 8.542  |
| Subtotal: Support                                                         |                                | - / 10.747                     | - / 0.274                      | - / 0.334                                                                    | - / 1.710                      | - / -                          | - / 1.710                      | - / 0.401                                                                | - / 0.295                      | - / 0.207                      | - / 0.339                      | Continuing                     | Continuing |
| Installation                                                              |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| Modification Item 1 of 1: Key Management (KM) - Ashore (DA005)            |                                | - / 14.950                     | - / 0.200                      | - / 0.000                                                                    | - / 0.175                      | - / 0.000                      | - / 0.175                      | - / 2.950                                                                | - / 0.500                      | - / 0.150                      | - / 0.000                      | Continuing                     | Continuing |
| Subtotal: Installation                                                    |                                | - / 14.950                     | - / 0.200                      | - / -                                                                        | - / 0.175                      | - / -                          | - / 0.175                      | - / 2.950                                                                | - / 0.500                      | - / 0.150                      | - / -                          | Continuing                     | Continuing |
| Total                                                                     |                                |                                |                                |                                                                              |                                |                                |                                |                                                                          |                                |                                |                                |                                |            |
| Total Cost (Procurement + Support + Installation)                         |                                | 66.656                         | 3.248                          | 4.803                                                                        | 6.212                          | 0.000                          | 6.212                          | 5.910                                                                    | 3.604                          | 3.448                          | 5.201                          | Continuing                     | Continuing |

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| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                   |                                |                                |                                |                                                                                     |                                |                                       |                                | <b>Date:</b> February 2018                                                      |                                |                                |                                |                                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15             |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                |                                       |                                | <b>Modification Number / Title:</b><br>6 / Key Management (KM) - Ashore (DA005) |                                |                                |                                |                                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                      |                                |                                |                                |                                                                                     |                                |                                       |                                | <b>MDAP/MAIS Code:</b>                                                          |                                |                                |                                |                                |
| <b>Modification Item 1 of 1:</b> Key Management (KM) - Ashore (DA005)                        |                                |                                |                                |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| <b>Manufacturer Information</b>                                                              |                                |                                |                                |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| Manufacturer Name: Simple Key Loader (SKL) - Sierra Nevada Corporation                       |                                |                                |                                |                                                                                     |                                | Manufacturer Location: Sparks, NV     |                                |                                                                                 |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 4                                                       |                                |                                |                                |                                                                                     |                                | Production Leadtime (in Months): 2    |                                |                                                                                 |                                |                                |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                                                                 |                                |                                |                                |                                |
| Contract Dates                                                                               | Feb 2017                       | Feb 2018                       | Feb 2019                       |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| Delivery Dates                                                                               | Apr 2017                       | Apr 2018                       | Apr 2019                       |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| Manufacturer Name: Key Management Infrastructure (KMI) Tech Refresh - NSA                    |                                |                                |                                |                                                                                     |                                | Manufacturer Location: Fort Meade, MD |                                |                                                                                 |                                |                                |                                |                                |
| Administrative Leadtime (in Months): 5                                                       |                                |                                |                                |                                                                                     |                                | Production Leadtime (in Months): 4    |                                |                                                                                 |                                |                                |                                |                                |
| <b>Dates</b>                                                                                 | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019</b>                 | <b>FY 2020</b>                                                                      | <b>FY 2021</b>                 | <b>FY 2022</b>                        | <b>FY 2023</b>                 |                                                                                 |                                |                                |                                |                                |
| Contract Dates                                                                               |                                | Mar 2018                       | Mar 2019                       |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| Delivery Dates                                                                               |                                | Jul 2018                       | Jul 2019                       |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| <b>Installation Information</b>                                                              |                                |                                |                                |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| <b>Method of Implementation:</b> Installed:: Installation Name: Key Management (KM) - Ashore |                                |                                |                                |                                                                                     |                                |                                       |                                |                                                                                 |                                |                                |                                |                                |
| <b>Installation Cost</b>                                                                     | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>                  | <b>FY 2020</b>                 | <b>FY 2021</b>                                                                  | <b>FY 2022</b>                 | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |
|                                                                                              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)        | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                  | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |
| Prior Years                                                                                  | 457 / 14.950                   | 24 / 0.200                     | - / -                          | - / -                                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                           | - / -                          | - / -                          | 0 / 0.000                      | 481 / 15.150                   |
| FY 2017                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                           | - / -                          | - / -                          | - / -                          | - / -                          |
| FY 2018                                                                                      | - / -                          | - / -                          | - / -                          | 6 / 0.150                                                                           | 0 / 0.000                      | 6 / 0.150                             | - / -                          | - / -                                                                           | - / -                          | - / -                          | 0 / 0.000                      | 6 / 0.150                      |
| FY 2019                                                                                      | - / -                          | - / -                          | - / -                          | 1 / 0.025                                                                           | 0 / 0.000                      | 1 / 0.025                             | 66 / 1.350                     | - / -                                                                           | - / -                          | - / -                          | 0 / 0.000                      | 67 / 1.375                     |
| FY 2020                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                                 | 64 / 1.600                     | - / -                                                                           | - / -                          | - / -                          | 0 / 0.000                      | 64 / 1.600                     |
| FY 2021                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                                 | - / -                          | 33 / 0.500                                                                      | 32 / 0.100                     | - / -                          | 0 / 0.000                      | 65 / 0.600                     |
| FY 2022                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                           | 16 / 0.050                     | - / -                          | 0 / 0.000                      | 16 / 0.050                     |
| FY 2023                                                                                      | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                           | - / -                          | - / -                          | Continuing                     | Continuing                     |
| To Complete                                                                                  | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                                 | - / -                          | - / -                                                                           | - / -                          | - / -                          | Continuing                     | Continuing                     |
| Total                                                                                        | 457 / 14.950                   | 24 / 0.200                     | - / -                          | 7 / 0.175                                                                           | 0 / 0.000                      | 7 / 0.175                             | 130 / 2.950                    | 33 / 0.500                                                                      | 48 / 0.150                     | - / -                          | Continuing                     | Continuing                     |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-------------------------------------------------------------------------------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|------------------------|-----------|---------------------------------------------------------------------------------|-----------|---------------------------------|-----------|----------------------------|-----------|----------------|-----------|-----------|-----------|-----------|------------|-------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           | <b>Date:</b> February 2018 |           |                |           |           |           |           |            |       |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                |           |           |           |                |           |           |           | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |           |           |           |                |           |           |           |                        |           | <b>Modification Number / Title:</b><br>6 / Key Management (KM) - Ashore (DA005) |           |                                 |           |                            |           |                |           |           |           |           |            |       |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           | <b>MDAP/MAIS Code:</b> |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |
| <b>Modification Item 1 of 1:</b> Key Management (KM) - Ashore (DA005)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |
| <b>Method of Implementation:</b> Installed:: Installation Name: Key Management (KM) - Ashore                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PYS</b> | <b>FY 2017</b> |           |           |           | <b>FY 2018</b> |           |           |           | <b>FY 2019</b>                                                                      |           |           |           | <b>FY 2020</b> |           |           |           | <b>FY 2021</b>         |           |                                                                                 |           | <b>FY 2022</b>                  |           |                            |           | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>                                                                           | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> | <b>Q1</b>              | <b>Q2</b> | <b>Q3</b>                                                                       | <b>Q4</b> | <b>Q1</b>                       | <b>Q2</b> | <b>Q3</b>                  | <b>Q4</b> | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |       |
| In                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 449        | 8              | -         | 22        | 2         | -              | -         | -         | -         | -                                                                                   | -         | -         | 4         | 2              | 1         | 18        | 36        | 29                     | 47        | -                                                                               | -         | 18                              | 15        | 15                         | 16        | 16             | 1         | -         | -         | -         | Cont.      | Cont. |
| Out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 449        | 8              | -         | 1         | 23        | -              | -         | -         | -         | -                                                                                   | -         | -         | 3         | 3              | 1         | 16        | 27        | 40                     | 40        | 7                                                                               | -         | 18                              | 15        | -                          | 16        | 31             | 1         | -         | -         | -         | Cont.      | Cont. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |
| <b>Method of Implementation (Organic):</b> Simple Key Loader (SKL) - Not Installed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           | <b>Installation Quantity:</b> 0 |           |                            |           |                |           |           |           |           |            |       |
| <p><b>Footnotes:</b></p> <p><sup>(30)</sup> Simple Key Loaders (SLK) - FY19 decrease is due to the attrition rate caused by the seven-year battery life span. SKL procurements are required to replenish the fleet with key-fill devices required to conduct secure, mission-critical communications. Quantities fluctuate to remain within the Inventory Objective Capability (IOC).</p> <p><sup>(31)</sup> Key Management Infrastructure (KMI) Tech Refresh - FY19 increase of KMI Tech Refresh devices is the result of National Security Agency (NSA) mandated five-year refresh cycle. KMI Tech Refresh modernizes all KMI Spiral 2 systems. Unit cost increase from Spiral 2 to KMI Tech Refresh are due to change in hardware.</p> <p><sup>(32)</sup> Pre-Install Design Planning - FY19 increase reflects a one-for-one procurement to pre-install design planning cost associated with KMI Tech Refresh procurements/installations; Fluctuations in out years are attributed to not all installations requiring pre-install design planning due to multiple devices being installed at one site.</p> |            |                |           |           |           |                |           |           |           |                                                                                     |           |           |           |                |           |           |           |                        |           |                                                                                 |           |                                 |           |                            |           |                |           |           |           |           |            |       |

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|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                       |                                                                                     | <b>Date:</b> February 2018                                            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15 | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) | <b>Modification Number / Title:</b><br>7 / SHARKCAGE - Afloat (DA070) |

| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |             |         |         |              |             | MDAP/MAIS Code: |         |         |         |         |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------|-----------------|---------|---------|---------|---------|-------------|------------|
| Resource Summary                                                                                                                       | Prior Years | FY 2017 | FY 2018 | FY 2019 Base | FY 2019 OCO | FY 2019 Total   | FY 2020 | FY 2021 | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                   | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                              | 0.000       | 0.000   | 3.083   | 13.260       | 0.000       | 13.260          | 38.841  | 39.292  | 41.154  | 37.885  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                 | 0.000       | 0.000   | 3.083   | 13.260       | 0.000       | 13.260          | 38.841  | 39.292  | 41.154  | 37.885  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                           | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                            | 0.000       | 0.000   | 3.083   | 13.260       | 0.000       | 13.260          | 38.841  | 39.292  | 41.154  | 37.885  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |             |         |         |              |             |                 |         |         |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Thousands)                                                                                        | -           | -       | -       | -            | -           | -               | -       | -       | -       | -       | -           | -          |

**Description:**

SHARKCAGE is a global, federated Defensive Cyberspace Operations (DCO) enclave consisting of sensor nodes, DCO analysis workbenches, and analytic nodes. Utilizing one-way passive taps in a protected, isolated, classified environment, SHARKCAGE consolidates cyber event data from multiple platforms and networks, providing Navy DCO forces with a shared environment and common platform for integrated workflow, collaboration, and analysis. SHARKCAGE efficiently detects, correlates, and analyzes nation and non-nation state attacks against maritime data and the Naval Networking Environment (NNE).

SHARKCAGE afloat suites includes laptops, servers, switches, storage, network taps/cables, and forensic equipment to enable deployed DCO forces to conduct localized mobile analysis. Afloat suites also include hardware and software for enhanced data correlation tools, ancillary devices, and other related security tools.

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|---------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                              |                                |                                |                                |                                | Date: February 2018                                            |                                |                                |                                |  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15 |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                |                                | Modification Number / Title:<br>7 / SHARKCAGE - Afloat (DA070) |                                |                                |                                |  |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                |                                                                |                                |                                |                                |  |
| Models of Systems Affected: Ship, Sub                                     |                                |                                |                                | Modification Type: Initial                                                   |                                |                                |                                | Related RDT&E PEs: 0303140N    |                                                                |                                |                                |                                |  |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                        | FY 2022                                                        | FY 2023                        | To Complete                    | Total                          |  |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |  |
| Procurement                                                               |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| Modification Item 1 of 1: SHARKCAGE - Afloat (DA070)                      |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| B Kits                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| Recurring                                                                 |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| 1.1.1) SHARKCAGE Afloat Suite - NonOrganic <sup>(33)</sup>                | - / -                          | - / -                          | 4 / 1.000                      | 18 / 4.500                                                                   | - / -                          | 18 / 4.500                     | 53 / 13.250                    | 54 / 13.500                    | 57 / 14.250                                                    | 52 / 13.000                    | Continuing                     | Continuing                     |  |
| Subtotal: Recurring                                                       | - / 0.000                      | - / -                          | - / 1.000                      | - / 4.500                                                                    | - / -                          | - / 4.500                      | - / 13.250                     | - / 13.500                     | - / 14.250                                                     | - / 13.000                     | Continuing                     | Continuing                     |  |
| Subtotal: SHARKCAGE - Afloat (DA070)                                      | - / -                          | - / -                          | 4 / 1.000                      | 18 / 4.500                                                                   | - / -                          | 18 / 4.500                     | 53 / 13.250                    | 54 / 13.500                    | 57 / 14.250                                                    | 52 / 13.000                    | Continuing                     | Continuing                     |  |
| Subtotal: Procurement, All Modification Items                             | - / 0.000                      | - / -                          | - / 1.000                      | - / 4.500                                                                    | - / -                          | - / 4.500                      | - / 13.250                     | - / 13.500                     | - / 14.250                                                     | - / 13.000                     | Continuing                     | Continuing                     |  |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| 2.1) Train-the-Trainer                                                    | - / -                          | - / -                          | - / 0.150                      | - / 0.150                                                                    | - / -                          | - / 0.150                      | - / 0.150                      | - / 0.150                      | - / 0.150                                                      | - / 0.150                      | Continuing                     | Continuing                     |  |
| 2.2) Production Support                                                   | - / -                          | - / -                          | - / 0.050                      | - / 0.150                                                                    | - / -                          | - / 0.150                      | - / 0.372                      | - / 0.331                      | - / 0.331                                                      | - / 0.360                      | Continuing                     | Continuing                     |  |
| 2.3) DSA                                                                  | - / -                          | - / -                          | - / 0.383                      | - / 1.710                                                                    | - / -                          | - / 1.710                      | - / 5.194                      | - / 5.061                      | - / 5.048                                                      | - / 4.875                      | Continuing                     | Continuing                     |  |
| Subtotal: Support                                                         | - / 0.000                      | - / -                          | - / 0.583                      | - / 2.010                                                                    | - / -                          | - / 2.010                      | - / 5.716                      | - / 5.542                      | - / 5.529                                                      | - / 5.385                      | Continuing                     | Continuing                     |  |
| Installation                                                              |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| Modification Item 1 of 1: SHARKCAGE - Afloat (DA070)                      | - / 0.000                      | - / 0.000                      | - / 1.500                      | - / 6.750                                                                    | - / 0.000                      | - / 6.750                      | - / 19.875                     | - / 20.250                     | - / 21.375                                                     | - / 19.500                     | Continuing                     | Continuing                     |  |
| Subtotal: Installation                                                    | - / 0.000                      | - / -                          | - / 1.500                      | - / 6.750                                                                    | - / -                          | - / 6.750                      | - / 19.875                     | - / 20.250                     | - / 21.375                                                     | - / 19.500                     | Continuing                     | Continuing                     |  |
| Total                                                                     |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |
| Total Cost (Procurement + Support + Installation)                         | 0.000                          | 0.000                          | 3.083                          | 13.260                                                                       | 0.000                          | 13.260                         | 38.841                         | 39.292                         | 41.154                                                         | 37.885                         | Continuing                     | Continuing                     |  |
|                                                                           |                                |                                |                                |                                                                              |                                |                                |                                |                                |                                                                |                                |                                |                                |  |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------|-----------------------------------------------------------------------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|----------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                    |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                | <b>Date:</b> February 2018                  |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                              |                |                                |                                |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                |                                |                                             |                                |                                |                                |                | <b>Modification Number / Title:</b><br>7 / SHARKCAGE - Afloat (DA070) |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                       |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                | <b>MDAP/MAIS Code:</b>                      |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SHARKCAGE - Afloat (DA070)                                                                                                                                                                                                                                                                                                   |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                               |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Manufacturer Name: SHARKCAGE Equipment - SPAWAR Systems Center (SSC) Pacific                                                                                                                                                                                                                                                                                  |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                | Manufacturer Location: San Diego, CA        |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Administrative Leadtime ( <i>in Months</i> ): 2                                                                                                                                                                                                                                                                                                               |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                | Production Leadtime ( <i>in Months</i> ): 3 |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                                  | <b>FY 2017</b> |                                |                                |                                | <b>FY 2018</b>                                                                      |                                |                                |                                | <b>FY 2019</b>                 |                                             |                                |                                | <b>FY 2020</b>                 |                |                                                                       |           | <b>FY 2021</b> |                |           |           | <b>FY 2022</b> |                |           |           | <b>FY 2023</b> |                |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                                |                |                                |                                |                                | Dec 2017                                                                            |                                |                                |                                | Dec 2018                       |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                                |                |                                |                                |                                | Mar 2018                                                                            |                                |                                |                                | Mar 2019                       |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                               |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Installed:: Installation Name: SHARKCAGE - Afloat (DA070)                                                                                                                                                                                                                                                                    |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                      |                | <b>Prior Years</b>             | <b>FY 2017</b>                 | <b>FY 2018</b>                 | <b>FY 2019 Base</b>                                                                 | <b>FY 2019 OCO</b>             | <b>FY 2019 Total</b>           | <b>FY 2020</b>                 | <b>FY 2021</b>                 | <b>FY 2022</b>                              | <b>FY 2023</b>                 | <b>To Complete</b>             | <b>Total</b>                   |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                               |                | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                                      | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)              | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                                   |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                       | - / -                          | - / -                          | - / -                          |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                       | - / -                          | - / -                          | - / -                          |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | 4 / 1.500                      | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                       | - / -                          | 0 / 0.000                      | 4 / 1.500                      |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | - / -                          | 18 / 6.750                                                                          | 0 / 0.000                      | 18 / 6.750                     | - / -                          | - / -                          | - / -                                       | - / -                          | 0 / 0.000                      | 18 / 6.750                     |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | 53 / 19.875                    | - / -                          | - / -                                       | - / -                          | 0 / 0.000                      | 53 / 19.875                    |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | 54 / 20.250                    | - / -                                       | - / -                          | 0 / 0.000                      | 54 / 20.250                    |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                          | 57 / 21.375                                 | - / -                          | 0 / 0.000                      | 57 / 21.375                    |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                       |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                       | 52 / 19.500                    | Continuing                     | Continuing                     |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                                   |                | - / -                          | - / -                          | - / -                          | - / -                                                                               | - / -                          | - / -                          | - / -                          | - / -                          | - / -                                       | - / -                          | Continuing                     | Continuing                     |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                         |                | - / -                          | - / -                          | 4 / 1.500                      | 18 / 6.750                                                                          | 0 / 0.000                      | 18 / 6.750                     | 53 / 19.875                    | 54 / 20.250                    | 57 / 21.375                                 | 52 / 19.500                    | Continuing                     | Continuing                     |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                                  |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                               | <b>PYS</b>     | <b>FY 2017</b>                 |                                |                                |                                                                                     | <b>FY 2018</b>                 |                                |                                |                                | <b>FY 2019</b>                              |                                |                                |                                | <b>FY 2020</b> |                                                                       |           |                | <b>FY 2021</b> |           |           |                | <b>FY 2022</b> |           |           |                | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                               |                | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                                                                           | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>                                   | <b>Q2</b>                      | <b>Q3</b>                      | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                                                             | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b>      | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                            | -              | -                              | -                              | -                              | -                                                                                   | -                              | 3                              | -                              | 1                              | -                                           | 11                             | 5                              | 2                              | -              | 23                                                                    | 20        | 10             | -              | 16        | 24        | 14             | -              | 27        | 13        | 17             | -              | 30        | 13        | 9         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                                                                                                                                                           | -              | -                              | -                              | -                              | -                                                                                   | -                              | 3                              | -                              | 1                              | -                                           | 11                             | 4                              | 3                              | -              | 18                                                                    | 22        | 13             | -              | 7         | 23        | 24             | -              | 22        | 10        | 25             | -              | 30        | 7         | 15        | Cont.     | Cont.      |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                             |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |
| <sup>(33)</sup> SHARKCAGE Afloat Suite - FY19 is required for an increase of afloat suites needed to detect emerging threats in the tactical environment, provide the capability to analyze active cyber threats and take actions to contain/stop actual or potential cyber threat activities. Increases reflected in Production Support and DSA accordingly. |                |                                |                                |                                |                                                                                     |                                |                                |                                |                                |                                             |                                |                                |                                |                |                                                                       |           |                |                |           |           |                |                |           |           |                |                |           |           |           |           |            |

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| Exhibit P-3a, Individual Modification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         |         |                                                                              |             |               |                 | Date: February 2018 |                                                                |         |             |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|---------|------------------------------------------------------------------------------|-------------|---------------|-----------------|---------------------|----------------------------------------------------------------|---------|-------------|------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |         |         | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |             |               |                 |                     | Modification Number / Title:<br>8 / SHARKCAGE - Ashore (DA070) |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |         |                                                                              |             |               | MDAP/MAIS Code: |                     |                                                                |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Prior Years | FY 2017 | FY 2018 | FY 2019 Base                                                                 | FY 2019 OCO | FY 2019 Total | FY 2020         | FY 2021             | FY 2022                                                        | FY 2023 | To Complete | Total      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -           | -       | -       | -                                                                            | -           | -             | -               | -                   | -                                                              | -       | -           | -          |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.000       | 0.000   | 9.136   | 15.237                                                                       | 0.000       | 15.237        | 11.187          | 15.116              | 4.805                                                          | 9.069   | Continuing  | Continuing |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -           | -       | -       | -                                                                            | -           | -             | -               | -                   | -                                                              | -       | -           | -          |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.000       | 0.000   | 9.136   | 15.237                                                                       | 0.000       | 15.237        | 11.187          | 15.116              | 4.805                                                          | 9.069   | Continuing  | Continuing |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -           | -       | -       | -                                                                            | -           | -             | -               | -                   | -                                                              | -       | -           | -          |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.000       | 0.000   | 9.136   | 15.237                                                                       | 0.000       | 15.237        | 11.187          | 15.116              | 4.805                                                          | 9.069   | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |         |                                                                              |             |               |                 |                     |                                                                |         |             |            |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -       | -                                                                            | -           | -             | -               | -                   | -                                                              | -       | -           | -          |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -       | -                                                                            | -           | -             | -               | -                   | -                                                              | -       | -           | -          |
| Description:<br>SHARKCAGE ashore suites represent multiple SHARKCAGE architectures and variants that are specifically designed to each site in accordance with Fleet and Defensive Cyber Operations (DCO) requirements based on emergent threats in the tactical environment. Capabilities provided include network tapping, sensing, and analytic toolsets for passively monitoring multiple Navy networks to detect and assess cyber threats across multiple security enclaves. Ashore sites include Navy Cyber Defense Operations Command (NCDOC), Navy Information Operations Commands (NIOC), Fleet Cyber Command / Commander Tenth Fleet (FCC/C10F), Nuclear Command, Control, and Communications, Navy (NC3-N) sites, Ballistic Missile Defense (BMD) sites (i.e., Aegis Ashore), and SHARKCAGE production labs, as well as other network concentration facilities.<br><br>SHARKCAGE procures equipment to include: hardware, software, servers, data storage, taps, switches, laptops, and ancillary systems that provide the following capabilities: passive network sensor nodes that collect live network traffic and use signature-based and heuristic intrusion detection systems (IDS) to conduct initial analysis and alerting; analytic nodes which consist primarily of systems supporting ingest, storage, retention, retrieval, correlation, and real-time alerting of network traffic Packet Capture (PCAP) and event data; and analysis workbenches which provide an environment of tools for DCO analysts to support all aspects of the DCO mission, local to DCO forces at FCC/C10F, NCDOC, NIOC, Naval Computer and Telecommunications Stations (NCTS), and Naval Computer and Telecommunications Area Master Stations (NCTAMS).<br><br>SHARKCAGE NCDOC Suite is the primary ashore site that supports the entire Navy enterprise and provides the capability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Tech refresh will occur every five years.<br><br>SHARKCAGE Analytic Suite provides a regional/area of responsibility capability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Tech refresh will occur every five years.<br><br>SHARKCAGE Sensor Suite provide operators with the ability to conduct data ingest, data storage, data retention, data retrieval, data correlation, and real-time alerting of event-based data to support the DCO mission. Tech refresh will occur every five years. |             |         |         |                                                                              |             |               |                 |                     |                                                                |         |             |            |



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| Exhibit P-3a, Individual Modification: PB 2019 Navy                       |                                |                                |                                |                                                                              |                                |                                |                                | Date: February 2018                                            |                                |                                |                                |                                |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15 |                                |                                |                                | P-1 Line Item Number / Title:<br>3415 / Info Systems Security Program (ISSP) |                                |                                |                                | Modification Number / Title:<br>8 / SHARKCAGE - Ashore (DA070) |                                |                                |                                |                                |            |
| ID Code (A=Service Ready, B=Not Service Ready) :                          |                                |                                |                                |                                                                              |                                |                                | MDAP/MAIS Code:                |                                                                |                                |                                |                                |                                |            |
| Models of Systems Affected: Shore                                         |                                |                                | Modification Type: Various     |                                                                              |                                |                                |                                | Related RDT&E PEs: 0303140N                                    |                                |                                |                                |                                |            |
| Financial Plan                                                            | Prior Years                    | FY 2017                        | FY 2018                        | FY 2019 Base                                                                 | FY 2019 OCO                    | FY 2019 Total                  | FY 2020                        | FY 2021                                                        | FY 2022                        | FY 2023                        | To Complete                    | Total                          |            |
|                                                                           | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                               | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M)                                 | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |            |
| Procurement                                                               |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| Modification Item 1 of 1: SHARKCAGE - Ashore (DA070)                      |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| B Kits                                                                    |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| Recurring                                                                 |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| 1.1.1) SHARKCAGE NCDOD Suite - NonOrganic <sup>(34)</sup>                 |                                | - / -                          | - / -                          | 1 / 7.200                                                                    | - / -                          | - / -                          | - / -                          | - / -                                                          | - / -                          | 1 / 7.200                      | Continuing                     | Continuing                     |            |
| 1.1.2) SHARKCAGE Analytic Suite - NonOrganic <sup>(35)</sup>              |                                | - / -                          | - / -                          | - / -                                                                        | 2 / 9.600                      | - / -                          | 2 / 9.600                      | 1 / 4.800                                                      | 2 / 9.600                      | - / -                          | - / -                          | Continuing                     | Continuing |
| 1.1.3) SHARKCAGE Sensor Suite - NonOrganic                                |                                | - / -                          | - / -                          | 1 / 0.325                                                                    | 5 / 1.625                      | - / -                          | 5 / 1.625                      | 7 / 2.275                                                      | 5 / 1.625                      | 6 / 1.950                      | 1 / 0.325                      | Continuing                     | Continuing |
| Subtotal: Recurring                                                       |                                | - / 0.000                      | - / -                          | - / 7.525                                                                    | - / 11.225                     | - / -                          | - / 11.225                     | - / 7.075                                                      | - / 11.225                     | - / 1.950                      | - / 7.525                      | Continuing                     | Continuing |
| Subtotal: SHARKCAGE - Ashore (DA070)                                      |                                | - / -                          | - / -                          | 2 / 7.525                                                                    | 7 / 11.225                     | - / -                          | 7 / 11.225                     | 8 / 7.075                                                      | 7 / 11.225                     | 6 / 1.950                      | 2 / 7.525                      | Continuing                     | Continuing |
| Subtotal: Procurement, All Modification Items                             |                                | - / 0.000                      | - / -                          | - / 7.525                                                                    | - / 11.225                     | - / -                          | - / 11.225                     | - / 7.075                                                      | - / 11.225                     | - / 1.950                      | - / 7.525                      | Continuing                     | Continuing |
| Support (All Modification Items)                                          |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| 2.1) Train-the-Trainer                                                    |                                | - / -                          | - / -                          | - / 0.150                                                                    | - / 0.150                      | - / -                          | - / 0.150                      | - / 0.150                                                      | - / 0.150                      | - / 0.150                      | - / 0.150                      | Continuing                     | Continuing |
| 2.2) Production Support                                                   |                                | - / -                          | - / -                          | - / 0.370                                                                    | - / 0.386                      | - / -                          | - / 0.386                      | - / 0.169                                                      | - / 0.354                      | - / 0.101                      | - / 0.193                      | - / -                          | - / 1.573  |
| 2.3) DSA                                                                  |                                | - / -                          | - / -                          | - / 0.216                                                                    | - / 0.661                      | - / -                          | - / 0.661                      | - / 0.775                                                      | - / 0.677                      | - / 0.504                      | - / 0.326                      | Continuing                     | Continuing |
| Subtotal: Support                                                         |                                | - / 0.000                      | - / -                          | - / 0.736                                                                    | - / 1.197                      | - / -                          | - / 1.197                      | - / 1.094                                                      | - / 1.181                      | - / 0.755                      | - / 0.669                      | Continuing                     | Continuing |
| Installation                                                              |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| Modification Item 1 of 1: SHARKCAGE - Ashore (DA070)                      |                                | - / 0.000                      | - / 0.000                      | - / 0.875                                                                    | - / 2.815                      | - / 0.000                      | - / 2.815                      | - / 3.018                                                      | - / 2.710                      | - / 2.100                      | - / 0.875                      | Continuing                     | Continuing |
| Subtotal: Installation                                                    |                                | - / 0.000                      | - / -                          | - / 0.875                                                                    | - / 2.815                      | - / -                          | - / 2.815                      | - / 3.018                                                      | - / 2.710                      | - / 2.100                      | - / 0.875                      | Continuing                     | Continuing |
| Total                                                                     |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |
| Total Cost (Procurement + Support + Installation)                         |                                | 0.000                          | 0.000                          | 9.136                                                                        | 15.237                         | 0.000                          | 15.237                         | 11.187                                                         | 15.116                         | 4.805                          | 9.069                          | Continuing                     | Continuing |
|                                                                           |                                |                                |                                |                                                                              |                                |                                |                                |                                                                |                                |                                |                                |                                |            |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------|--------------------------------|-------------------------------------------------------------------------------------|--------------------------------|-----------|--------------------------------|----------------|--------------------------------------|-----------|--------------------------------|----------------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|----------------|--------------------------------|-----------|------------|----------------|-----------|-----------|-----------|-----------|------------|
| <b>Exhibit P-3a, Individual Modification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                               |            |                                |                                |           |                                |                |                                |           |                                | <b>Date:</b> February 2018                                                          |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 15                                                                                                                                                                                                                                                                         |            |                                |                                |           |                                |                |                                |           |                                | <b>P-1 Line Item Number / Title:</b><br>3415 / Info Systems Security Program (ISSP) |                                |           |                                |                |                                      |           |                                |                |                                | <b>Modification Number / Title:</b><br>8 / SHARKCAGE - Ashore (DA070) |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                  |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                | <b>MDAP/MAIS Code:</b>               |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Modification Item 1 of 1:</b> SHARKCAGE - Ashore (DA070)                                                                                                                                                                                                                                                                                              |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Manufacturer Information</b>                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| Manufacturer Name: SHARKCAGE Equipment - SPAWAR Systems Center (SSC) Pacific                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                | Manufacturer Location: San Diego, CA |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| Administrative Leadtime (in Months): 2                                                                                                                                                                                                                                                                                                                   |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                | Production Leadtime (in Months): 3   |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Dates</b>                                                                                                                                                                                                                                                                                                                                             |            | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                      |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |           |            | <b>FY 2023</b> |           |           |           |           |            |
| Contract Dates                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |           |                                | Dec 2017       |                                |           |                                | Dec 2018                                                                            |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| Delivery Dates                                                                                                                                                                                                                                                                                                                                           |            |                                |                                |           |                                | Mar 2018       |                                |           |                                | Mar 2019                                                                            |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Installation Information</b>                                                                                                                                                                                                                                                                                                                          |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Method of Implementation:</b> Installed:: Installation Name: SHARKCAGE - Ashore (DA070)                                                                                                                                                                                                                                                               |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <b>Installation Cost</b>                                                                                                                                                                                                                                                                                                                                 |            | <b>Prior Years</b>             | <b>FY 2017</b>                 |           | <b>FY 2018</b>                 |                | <b>FY 2019 Base</b>            |           | <b>FY 2019 OCO</b>             |                                                                                     | <b>FY 2019 Total</b>           |           | <b>FY 2020</b>                 |                | <b>FY 2021</b>                       |           | <b>FY 2022</b>                 |                | <b>FY 2023</b>                 |                                                                       | <b>To Complete</b>             |                | <b>Total</b>                   |           |            |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                          |            | Qty (Each) / Total Cost (\$ M) | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                                                                                     | Qty (Each) / Total Cost (\$ M) |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M)       |           | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |                                                                       | Qty (Each) / Total Cost (\$ M) |                | Qty (Each) / Total Cost (\$ M) |           |            |                |           |           |           |           |            |
| Prior Years                                                                                                                                                                                                                                                                                                                                              |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| FY 2017                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | - / -                          |           | - / -      |                |           |           |           |           |            |
| FY 2018                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | 2 / 0.875                      |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | 0 / 0.000                      |           | 2 / 0.875  |                |           |           |           |           |            |
| FY 2019                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | 7 / 2.815                      |           | 0 / 0.000                      |                                                                                     | 7 / 2.815                      |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | 0 / 0.000                      |           | 7 / 2.815  |                |           |           |           |           |            |
| FY 2020                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | 8 / 3.018                      |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | 0 / 0.000                      |           | 8 / 3.018  |                |           |           |           |           |            |
| FY 2021                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | 7 / 2.710                            |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | 0 / 0.000                      |           | 7 / 2.710  |                |           |           |           |           |            |
| FY 2022                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | - / -                                |           | 6 / 2.100                      |                | - / -                          |                                                                       | - / -                          |                | 0 / 0.000                      |           | 6 / 2.100  |                |           |           |           |           |            |
| FY 2023                                                                                                                                                                                                                                                                                                                                                  |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | 2 / 0.875                      |                | Continuing                     |           | Continuing |                |           |           |           |           |            |
| To Complete                                                                                                                                                                                                                                                                                                                                              |            | - / -                          | - / -                          |           | - / -                          |                | - / -                          |           | - / -                          |                                                                                     | - / -                          |           | - / -                          |                | - / -                                |           | - / -                          |                | - / -                          |                                                                       | - / -                          |                | Continuing                     |           | Continuing |                |           |           |           |           |            |
| Total                                                                                                                                                                                                                                                                                                                                                    |            | - / -                          | - / -                          |           | 2 / 0.875                      |                | 7 / 2.815                      |           | 0 / 0.000                      |                                                                                     | 7 / 2.815                      |           | 8 / 3.018                      |                | 7 / 2.710                            |           | 6 / 2.100                      |                | 2 / 0.875                      |                                                                       | Continuing                     |                | Continuing                     |           |            |                |           |           |           |           |            |
| <b>Installation Schedule</b>                                                                                                                                                                                                                                                                                                                             |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
|                                                                                                                                                                                                                                                                                                                                                          | <b>PYS</b> | <b>FY 2017</b>                 |                                |           |                                | <b>FY 2018</b> |                                |           |                                | <b>FY 2019</b>                                                                      |                                |           |                                | <b>FY 2020</b> |                                      |           |                                | <b>FY 2021</b> |                                |                                                                       |                                | <b>FY 2022</b> |                                |           |            | <b>FY 2023</b> |           |           |           | <b>TC</b> | <b>Tot</b> |
|                                                                                                                                                                                                                                                                                                                                                          |            | <b>Q1</b>                      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>                                                                           | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                            | <b>Q3</b> | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b>                                                             | <b>Q4</b>                      | <b>Q1</b>      | <b>Q2</b>                      | <b>Q3</b> | <b>Q4</b>  | <b>Q1</b>      | <b>Q2</b> | <b>Q3</b> | <b>Q4</b> |           |            |
| In                                                                                                                                                                                                                                                                                                                                                       | -          | -                              | -                              | -         | -                              | -              | 2                              | -         | -                              | -                                                                                   | 7                              | -         | -                              | -              | 8                                    | -         | -                              | -              | 7                              | -                                                                     | -                              | -              | 6                              | -         | -          | -              | 2         | -         | -         | Cont.     | Cont.      |
| Out                                                                                                                                                                                                                                                                                                                                                      | -          | -                              | -                              | -         | -                              | -              | -                              | 2         | -                              | -                                                                                   | 7                              | -         | -                              | -              | 8                                    | -         | -                              | -              | 7                              | -                                                                     | -                              | -              | 6                              | -         | -          | -              | 2         | -         | -         | Cont.     | Cont.      |
| <b>Footnotes:</b>                                                                                                                                                                                                                                                                                                                                        |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <sup>(34)</sup> SHARKCAGE Navy Cyber Defense Operations Command (NCDOD) Suite - FY19 decrease reflects a five year tech refresh cycle. NCDOD is the primary SHARKCAGE suite that supports the entire Navy enterprise and provides the capability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |
| <sup>(35)</sup> SHARKCAGE Analytic Suite - FY19 is for the procurement of Analytic Suites, which provides a regional/Area of Responsibility (AOR) capability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Tech refresh will occur every five years.                                           |            |                                |                                |           |                                |                |                                |           |                                |                                                                                     |                                |           |                                |                |                                      |           |                                |                |                                |                                                                       |                                |                |                                |           |            |                |           |           |           |           |            |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|-----------------------------------------------|--------------------|----------------------|----------------------------------------------------------------------------|--------------------------------------------|----------------|----------------------------|--------------------|---------------|
| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                |                |                                               |                    |                      |                                                                            |                                            |                | <b>Date:</b> February 2018 |                    |               |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 15: Cryptographic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>3417 / MIO Intel Exploitation Team |                                            |                |                            |                    |               |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                            | <b>Other Related Program Elements:</b> N/A |                |                            |                    |               |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                |                |                                               |                    |                      |                                                                            |                                            |                |                            |                    |               |
| <b>Resource Summary</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                             | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>  |
| Procurement Quantity <i>(Units in Each)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.470              | 0.920          | 0.961          | 0.951                                         | 0.000              | 0.951                | 0.968                                                                      | 0.986                                      | 1.005          | 1.025                      | -                  | 10.286        |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3.470              | 0.920          | 0.961          | 0.951                                         | 0.000              | 0.951                | 0.968                                                                      | 0.986                                      | 1.005          | 1.025                      | -                  | 10.286        |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| <b>Total Obligation Authority <i>(\$ in Millions)</i></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>3.470</b>       | <b>0.920</b>   | <b>0.961</b>   | <b>0.951</b>                                  | <b>0.000</b>       | <b>0.951</b>         | <b>0.968</b>                                                               | <b>0.986</b>                               | <b>1.005</b>   | <b>1.025</b>               | <b>-</b>           | <b>10.286</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                |                |                                               |                    |                      |                                                                            |                                            |                |                            |                    |               |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Flyaway Unit Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | -              | -              | -                                             | -                  | -                    | -                                                                          | -                                          | -              | -                          | -                  | -             |
| <br><b>Description:</b><br>[P40A / 343SA - Maritime Interdiction Operations Intel Exploitation Team]: Tactical Electronic Warfare Equipment: Procure Tactical Electronic Warfare (EW) equipment to be used in support of Indications and Warning and Force Protection. The capability includes an array of Tactical EW systems capable of both digital and analogue collection in the Radio Frequency (RF) environment. Specific collection capabilities include Digital and Analogue data collection; Specific Emitter ID, which discerns unique attributes of specific radar; Satellite Communication capability; Wireless Networks to conduct surveys, which is a telecom network mapping, and Document and Media Exploitation allowing capture of media from electronic devices. |                    |                |                |                                               |                    |                      |                                                                            |                                            |                |                            |                    |               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                 |                                       |             |                                               |                |                                          |                                                                            | <b>Date:</b> February 2018               |                                          |                                          |                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|-----------------------------------------------|----------------|------------------------------------------|----------------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment                                                                     |                                       |             |                                               |                |                                          | <b>P-1 Line Item Number / Title:</b><br>3417 / MIO Intel Exploitation Team |                                          |                                          |                                          |                                          |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                          |                                       |             | <b>Program Elements for Code B Items:</b> N/A |                |                                          | <b>Other Related Program Elements:</b> N/A                                 |                                          |                                          |                                          |                                          |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                              |                                       |             |                                               |                |                                          |                                                                            |                                          |                                          |                                          |                                          |
| Exhibits Schedule                                                                                                                                                                                                                                 |                                       |             |                                               |                | Prior Years                              | FY 2017                                                                    | FY 2018                                  | FY 2019 Base                             | FY 2019 OCO                              | FY 2019 Total                            |
| Exhibit Type                                                                                                                                                                                                                                      | Title*                                | Subexhibits | ID CD                                         | MDAP/MAIS Code | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M)                                   | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) | Quantity / Total Cost<br>(Each) / (\$ M) |
| P-40a                                                                                                                                                                                                                                             | MIO Intel Exploitation Team           | P-5a        |                                               |                | - / 3.470                                | - / 0.920                                                                  | - / 0.961                                | - / 0.951                                | - / -                                    | - / 0.951                                |
| <b>P-40</b>                                                                                                                                                                                                                                       | <b>Total Gross/Weapon System Cost</b> |             |                                               |                | <b>- / 3.470</b>                         | <b>- / 0.920</b>                                                           | <b>- / 0.961</b>                         | <b>- / 0.951</b>                         | <b>- / 0.000</b>                         | <b>- / 0.951</b>                         |
| *Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown. |                                       |             |                                               |                |                                          |                                                                            |                                          |                                          |                                          |                                          |
| Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.                                                                                                                                                            |                                       |             |                                               |                |                                          |                                                                            |                                          |                                          |                                          |                                          |

## Justification:

The FY19 funding request supports the procurement of eight (8) devices which conduct surveys of telecommunications and network mapping. Devices use a supported computer platform plus Standard or Next Generation device/media connectors for document and media exploitation, allowing capture of media from electronic devices.

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                       |       |                |                  |            |                   |                  |                                                                     |                   |                  |            |                   |                  |            |                   | Date: February 2018                                    |            |                   |                  |            |                   |
|---------------------------------------------------------------------------------------------------|-------|----------------|------------------|------------|-------------------|------------------|---------------------------------------------------------------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------------|--------------------------------------------------------|------------|-------------------|------------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15                         |       |                |                  |            |                   |                  | P-1 Line Item Number / Title:<br>3417 / MIO Intel Exploitation Team |                   |                  |            |                   |                  |            |                   | Aggregated Items Title:<br>MIO Intel Exploitation Team |            |                   |                  |            |                   |
| Item Number / Title [DODIC]                                                                       | ID CD | MDAP/MAIS Code | Prior Years      |            |                   | FY 2017          |                                                                     |                   | FY 2018          |            |                   | FY 2019 Base     |            |                   | FY 2019 OCO                                            |            |                   | FY 2019 Total    |            |                   |
|                                                                                                   |       |                | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each)                                                          | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M)                                       | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$ M) | Qty (Each) | Total Cost (\$ M) |
| 1) 343SA - Maritime Interdiction Operations Intel Exploitation Team                               |       |                |                  |            |                   |                  |                                                                     |                   |                  |            |                   |                  |            |                   |                                                        |            |                   |                  |            |                   |
| 1.1) 343SA - Satellite Communications Equipment <sup>(†)</sup>                                    | A     |                | -                | -          | -                 | 0.307            | 3                                                                   | 0.920             | -                | -          | -                 | -                | -          | -                 | -                                                      | -          | -                 | -                | -          | -                 |
| 1.2) 343SA - Wireless Networks Mapping Equipment / Surveys <sup>(†)(†)</sup>                      | A     |                | 0.341            | 3          | 1.024             | -                | -                                                                   | -                 | -                | -          | -                 | 0.119            | 8          | 0.951             | -                                                      | -          | -                 | 0.119            | 8          | 0.951             |
| 1.3) 343SA - Wireless Networks Telcom Equipment                                                   | A     |                | 0.151            | 3          | 0.453             | -                | -                                                                   | -                 | -                | -          | -                 | -                | -          | -                 | -                                                      | -          | -                 | -                | -          | -                 |
| 1.4) 343SA - Specific Emitter Identification Devices                                              | A     |                | 0.341            | 3          | 1.024             | -                | -                                                                   | -                 | -                | -          | -                 | -                | -          | -                 | -                                                      | -          | -                 | -                | -          | -                 |
| 1.5) 343SA - Digital / Analogue Collection Devices <sup>(†)</sup>                                 | A     |                | -                | -          | -                 | -                | -                                                                   | -                 | 0.120            | 8          | 0.961             | -                | -          | -                 | -                                                      | -          | -                 | -                | -          | -                 |
| 1.6) DRT 1301C+/ TRS V7 Wireless Receiving System                                                 | A     |                | 0.875            | 1          | 0.875             | -                | -                                                                   | -                 | -                | -          | -                 | -                | -          | -                 | -                                                      | -          | -                 | -                | -          | -                 |
| 1.7) LANSHARK 5                                                                                   | A     |                | 0.094            | 1          | 0.094             | -                | -                                                                   | -                 | -                | -          | -                 | -                | -          | -                 | -                                                      | -          | -                 | -                | -          | -                 |
| Subtotal: 1) 343SA - Maritime Interdiction Operations Intel Exploitation Team                     |       |                | -                | -          | 3.470             | -                | -                                                                   | 0.920             | -                | -          | 0.961             | -                | -          | 0.951             | -                                                      | -          | -                 | -                | -          | 0.951             |
| Total                                                                                             |       |                | -                | -          | 3.470             | -                | -                                                                   | 0.920             | -                | -          | 0.961             | -                | -          | 0.951             | -                                                      | -          | -                 | -                | -          | 0.951             |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding. |       |                |                  |            |                   |                  |                                                                     |                   |                  |            |                   |                  |            |                   |                                                        |            |                   |                  |            |                   |
| <sup>(†)</sup> indicates the presence of a P-5a                                                   |       |                |                  |            |                   |                  |                                                                     |                   |                  |            |                   |                  |            |                   |                                                        |            |                   |                  |            |                   |
| Footnotes:                                                                                        |       |                |                  |            |                   |                  |                                                                     |                   |                  |            |                   |                  |            |                   |                                                        |            |                   |                  |            |                   |
| <sup>(1)</sup> Tax applied to FYDP starting 2019.                                                 |       |                |                  |            |                   |                  |                                                                     |                   |                  |            |                   |                  |            |                   |                                                        |            |                   |                  |            |                   |

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.

(†) indicates the presence of a P-5a

**Footnotes:**

(1) Tax applied to FYDP starting 2019.

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy              |             |      |                                                                     |                                      |                 |               |                              |               | Date: February 2018                              |                        |                               |                   |
|---------------------------------------------------------------------------|-------------|------|---------------------------------------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|--------------------------------------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 15 |             |      | P-1 Line Item Number / Title:<br>3417 / MIO Intel Exploitation Team |                                      |                 |               |                              |               | Aggregated Items:<br>MIO Intel Exploitation Team |                        |                               |                   |
| Item Number / Title [DODIC]                                               | O<br>C<br>O | FY   | Contractor and Location                                             | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$ M)                              | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1) 343SA - Maritime Interdiction Operations Intel Exploitation Team       |             |      |                                                                     |                                      |                 |               |                              |               |                                                  |                        |                               |                   |
| 1.1) 343SA - Satellite Communications Equipment                           |             | 2017 | Prime Vendor / Various                                              | MIPR                                 | DLA             | Feb 2017      | Aug 2017                     | 3             | 0.307                                            | N                      |                               | Oct 2016          |
| 1.2) 343SA - Wireless Networks Mapping Equipment / Surveys <sup>(1)</sup> |             | 2019 | TBD / TBD                                                           | C / TBD                              | TBD             | Feb 2019      | Aug 2019                     | 8             | 0.119                                            | N                      | Jun 2019                      | Nov 2018          |
| 1.5) 343SA - Digital / Analogue Collection Devices                        |             | 2018 | TBD / TBD                                                           | TBD                                  | TBD             | Jul 2018      | Jan 2019                     | 8             | 0.120                                            | N                      | Dec 2018                      | Jan 2018          |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                              |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                | <b>Date:</b> February 2018 |                    |                |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 16: Cryptologic Equipment |                    |                |                |                                               |                    |                      | <b>P-1 Line Item Number / Title:</b><br>3501 / Cryptologic Communications Equip |                                            |                |                            |                    |                |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                       |                    |                |                | <b>Program Elements for Code B Items:</b> N/A |                    |                      |                                                                                 | <b>Other Related Program Elements:</b> N/A |                |                            |                    |                |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                           |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                |                            |                    |                |
| <b>Resource Summary</b>                                                                                                                                                        | <b>Prior Years</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019 Base</b>                           | <b>FY 2019 OCO</b> | <b>FY 2019 Total</b> | <b>FY 2020</b>                                                                  | <b>FY 2021</b>                             | <b>FY 2022</b> | <b>FY 2023</b>             | <b>To Complete</b> | <b>Total</b>   |
| Procurement Quantity ( <i>Units in Each</i> )                                                                                                                                  | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -              |
| Gross/Weapon System Cost ( <i>\$ in Millions</i> )                                                                                                                             | 69.031             | 23.698         | 16.667         | 14.209                                        | 2.000              | 16.209               | 13.164                                                                          | 15.912                                     | 18.428         | 18.600                     | -                  | 191.709        |
| Less PY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -              |
| Net Procurement (P-1) ( <i>\$ in Millions</i> )                                                                                                                                | 69.031             | 23.698         | 16.667         | 14.209                                        | 2.000              | 16.209               | 13.164                                                                          | 15.912                                     | 18.428         | 18.600                     | -                  | 191.709        |
| Plus CY Advance Procurement ( <i>\$ in Millions</i> )                                                                                                                          | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -              |
| <b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )                                                                                                                    | <b>69.031</b>      | <b>23.698</b>  | <b>16.667</b>  | <b>14.209</b>                                 | <b>2.000</b>       | <b>16.209</b>        | <b>13.164</b>                                                                   | <b>15.912</b>                              | <b>18.428</b>  | <b>18.600</b>              | -                  | <b>191.709</b> |
| <i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>                                  |                    |                |                |                                               |                    |                      |                                                                                 |                                            |                |                            |                    |                |
| Initial Spares ( <i>\$ in Millions</i> )                                                                                                                                       | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -              |
| Flyaway Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                                   | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -              |
| Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )                                                                                                                       | -                  | -              | -              | -                                             | -                  | -                    | -                                                                               | -                                          | -              | -                          | -                  | -              |

**Description:**

[P5 / 1V045 Access Systems & Subsystems]: Cryptologic Carry-On Equipment: The Cryptologic Carry-On Program (CCOP) procures state-of-the-art, commercial off-the-shelf signal acquisition equipment (hardware and software) in response to combatant commander requirements for a quick-reaction surface, subsurface, and airborne cryptologic carry-on capability. The equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare / Cryptologic System Operational Requirements Document and specific execution year fleet requirements as defined by the Signals Of Interest (SOI) Integrated Product Team (IPT) and in concert with Shipboard Signals Exploitation Space (SSES) programs to ensure synergy and seamless transition to permanently installed SSES systems. The IPT meets several times a year and determines which SOIs/Targets on the SOI list need to be addressed. Due to a continually changing threat environment, detailed requirements are dynamic and equipment procured varies each year by quantity and type. Equipment suites can be configured for many targets and tasking. Target specific subsystems can either operate as stand-alone within cryptologic spaces or as an add-on to existing equipment. Hardware procurement includes: receivers, recorders, tactical computers and related peripherals, antennas, electronic-warfare support measures systems, precision geolocation equipment, advanced signal and search equipment including spectrum analyzers and associated portable special intelligence communications equipment. CCOP equipment is installed as an augment to cryptologic capabilities on subsurface, surface, and air platforms. There are approximately 124 cryptologic capable surface ships and shore sites in the current Navy inventory. Each of these are potential users of this carry-on equipment, as are subsurface and air platforms. The temporary installation of equipment is coordinated through fleet electronic support personnel. A primary system in inventory is the Carry On Radio Spectrum Analysis & Intelligence Reporting (CORSAIR) system. Funds continue to procure CORSAIR core architecture system upgrades to provide additional affordable functionality to the combatant commands. Additional signal acquisition equipment to address specific combatant command requirements include such systems as Digital Receiver Technology (DRT), Hostile forces Integrated Targeting Service (HITS), Maritime Toxic Pen (MTP), TURBULENTWAVE / TURBULENTWIND / TURBULENTSAIL, BLUESTREAM servers, RED FALCON / VULCAN, STINGRAY, MUDCAT, Toxic Fog, Radio Frequency Distribution Unit (RFDU), TEAPARTY/TEALEAF, and Generic Area Limitations Environment (GALE)-Lite. This line also supports the procurement of STALLION hardware for CCOP team training.

[P5 / Global Signal Analysis Laboratory (GSAL) NAVIFOR [60]]: GDX6D - GLOBAL SIGNAL ANALYSIS LABORATORY (GSAL): The Navy GSAL program, under project name CLASSIC SENSEI, provides for the timely analysis of data derived from maritime mobile Information Warfare (IW) operations. GSAL support is conducted by Signals Analysis Laboratories (SAL) co-located with Fleet Information Operations Centers (FIOC) at theater-level analysis and processing centers and by QuickLook / Nodes forward-based at fleet concentration areas. The GSAL program office equips the SAL's with advanced signals analysis capabilities in order to accomplish the high order analysis that is required to effectively address SAL processing and exploitation requirements in support of both maritime tactical and national strategic IW objectives. Additionally, SAL's are equipped with specialized capabilities to support FIOC maritime Signal Descriptor File (SDF) requirements. Funding is required to maintain and sustain SAL operations while allowing for upgrades required to integrate new technology to accommodate the highly technical analysis requirements attendant with a highly diverse and constantly changing electromagnetic environment. Additionally, Navy SAL's are integral components of the global collaborative enterprise architecture via the GSAL LABLINK data handling subsystem. LABLINK provides for advanced data manipulation, achieving, and forwarding / exchange while providing connectivity and global reachback in support of analysis with collaborating military, national, and international partners via signal screening and processing tools resident in LABLINK. GSAL theater-level laboratories are located at Navy Information Operations Command (NIOC) Hawaii (Pacific SAL), and NIOC Ft Gordon, Georgia (Atlantic SAL). Forward-based

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                               | <b>Date:</b> February 2018                                                      |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 16: Cryptologic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                               | <b>P-1 Line Item Number / Title:</b><br>3501 / Cryptologic Communications Equip |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Program Elements for Code B Items:</b> N/A | <b>Other Related Program Elements:</b> N/A                                      |
| <b>Line Item MDAP/MAIS Code:</b> N/A<br><br>screening and forwarding QuickLook / Nodes are located at Souda Bay, Crete (potential relocation within the European theater), NIOC Bahrain, and a future installation at Kadena, Japan. Other GSAL facilities are located at NIOC Yokosuka, Japan, and at the Naval Information Warfare Activity (NIWA).<br><br>[P5 / GDX6D - System Integration and Installation of Hardware]: Fleet Information Operations Centers (FIOC): There are FIOCs co-located with National Security Agency (NSA) Cryptologic Centers supporting the geographical Satellite Communication Network (SATCOM). Each are charged with providing regionally focused Information Operation (IO) and Signal Intelligence (SIGINT) support to Fleet Commanders. FIOCs leverage NSA capabilities, analysis, and manpower in support of Fleet requirements. Funds are required for purchasing and maintaining life cycle support for command and control systems connected to SCI networks at the FIOCs. Funds are also provided to develop and maintain a common baseline of analytical intelligence software tools supporting FIOC capability areas as defined in the FIOC operational strategy (OPSTRAT).<br><br>[P5 / EW Fleet Synthetic Trainer Consolidation]: The Department's Fleet Synthetic Training (FST) (SIGINT / C-ISR) initiative addresses the lack of realistic SIGINT / C-ISR during exercises supporting the Fleet Training Continuum (FTC). Addresses critical requirements for SIGINT and C-ISR in Fleet Synthetic Training (FST) required in preparing Intelligence personnel/teams for forward deployed operations.<br><br>This effort provides the ability to exercise shipboard TS-SCI capabilities in an environment not subject to counter-detection. Improves staff operational planning and tactical decision making combined with improvements to overall Intelligence team readiness and certification throughout the Optimized-Fleet Response Plan (O-FRP). Supports Assured C2 and Cyber Situational Awareness/Cyber Defense and Enhanced Naval Network Environment (NNE) Information Dominance IPCLs. Builds upon GENSER NCTE (Navy Continuous Training Environment) to expand the existing GENSER NCTE with Above GENSER capabilities to include TS-SCI FST architecture/capabilities. Provides for architecture, capabilities and scenario build-out as well as required life-cycle management.<br><br>This capability will enhance individual units and Strike Groups in exercising integrated kinetic and non-kinetic capabilities, to include operations/intelligence fusion required for comprehensive maritime operations and operational proficiency in Electromagnetic Maneuver Warfare (EMW). FY 18 and out will fund Life Cycle Management (LCM) of the TS/SCI NCTE node on the East Coast and 14 Portable Embarkation Kits (PEKs). |                                               |                                                                                 |



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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                       |                    |                                               |                       |                                              |                                                                                 |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 16: Cryptologic Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>3501 / Cryptologic Communications Equip |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                       |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                                      |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                       |                    |                                               |                       |                                              |                                                                                 |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                       |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                                  | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                                    | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1 / Cryptologic Communications Equip  | P-5a, P-21         |                                               |                       | - / 69.031                                   | - / 23.698                                                                      | - / 16.667                                   | - / 14.209                                   | - / 2.000                                    | - / 16.209                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Total Gross/Weapon System Cost</b> |                    |                                               |                       | <b>- / 69.031</b>                            | <b>- / 23.698</b>                                                               | <b>- / 16.667</b>                            | <b>- / 14.209</b>                            | <b>- / 2.000</b>                             | <b>- / 16.209</b>                            |
| <p><small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.</small></p> <p><small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                       |                    |                                               |                       |                                              |                                                                                 |                                              |                                              |                                              |                                              |
| <p><b>Justification:</b></p> <p>FY19 funds will continue to satisfy signals exploitation capability gaps as determined by the Cryptologic Carry-on Program (CCOP) Signals of Interest (SOI) Integrated Product Team (IPT). At this time the recommendations for procurements that are best suited to address identified gaps may include: Digital Receiver Technology (DRT), Hostile forces Integrated Targeting Service (HITS), Maritime Toxic Pen (MTP), TURBULENTWAVE / TURBULENTWIND / TURBULENTSAIL, BLUESTREAM servers, RED FALCON / VULCAN, STINGRAY, MUDCAT, Toxic Fog, Radio Frequency Distribution Unit (RFDU), TEAPARTY/ TEALEAF, and Generic Area Limitations Environment (GALE)-Lite, BLACKBIRD AND QUICKSHOT as well as Adaptive Mission Packages. This line supports the procurement of STALLION hardware for CCOP team training.</p> <p>FY19 funds will provide for the timely analysis of data derived from maritime mobile Information Warfare (IW) operations. Global Signals Analysis Laboratory (GSAL) support is conducted by Signals Analysis Laboratories (SAL) co-located with Fleet Information Operations Centers (FIOC) at theater-level analysis and processing centers and by QuickLook/Nodes forward-based at fleet concentration areas. The Navy's Fleet Synthetic Training (FST) (SIGINT / C-ISR) initiative addresses the lack of realistic SIGINT / C-ISR during exercises supporting the Fleet Training Continuum (FTC). Addresses critical requirements for SIGINT and C-ISR in Fleet Synthetic Training (FST) required in preparing Intelligence personnel/teams for forward deployed operations. FST provides the ability to exercise shipboard TS-SCI capabilities in an environment not subject to counter-detection; improves staff operational planning and tactical decision making combined with improvements to overall Intelligence team readiness and certification throughout the Optimized-Fleet Response Plan (O-FRP). Supports Assured C2 and Cyber Situational Awareness/Cyber Defense and Enhanced Naval Network Environment (NNE) Information Dominance IPCLs; builds upon GENSER NCTE (Navy Continuous Training Environment) to expand the existing GENSER NCTE with Above GENSER capabilities to include TS-SCI FST architecture/capabilities; provides for architecture, capabilities and scenario build-out as well as required life-cycle sustainment and maintenance.</p> <p><b>OCO:</b></p> <p>FY19 Overseas Contingency Operations (OCO) funds will procure advanced Information Operations hardware in support of the ongoing Navy response to Joint Urgent Operational Need (CC-0558) for Counter Unmanned Aerial Systems (CUAS) efforts. More information is available at a higher classification.</p> |                                       |                    |                                               |                       |                                              |                                                                                 |                                              |                                              |                                              |                                              |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                               |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               | Date: February 2018                                                  |                     |               |                      |                     |               |                      |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16                                                              |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip |                     |               |                      |                     |               | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                       |                     |               |                      |                     |               |                                                                          |                     |               |                      | MDAP/MAIS Code:     |               |                                                                      |                     |               |                      |                     |               |                      |
| Resource Summary                                                                                                                       |                     |               |                      | Prior Years         |               | FY 2017                                                                  |                     | FY 2018       |                      | FY 2019 Base        |               | FY 2019 OCO                                                          |                     | FY 2019 Total |                      |                     |               |                      |
| Procurement Quantity <i>(Units in Each)</i>                                                                                            |                     |               |                      | -                   |               | -                                                                        |                     | -             |                      | -                   |               | -                                                                    |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Cost <i>(\$ in Millions)</i>                                                                                       |                     |               |                      | 69.031              |               | 23.698                                                                   |                     | 16.667        |                      | 14.209              |               | 2.000                                                                |                     | 16.209        |                      |                     |               |                      |
| Less PY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                        |                     | -             |                      | -                   |               | -                                                                    |                     | -             |                      |                     |               |                      |
| Net Procurement (P-1) <i>(\$ in Millions)</i>                                                                                          |                     |               |                      | 69.031              |               | 23.698                                                                   |                     | 16.667        |                      | 14.209              |               | 2.000                                                                |                     | 16.209        |                      |                     |               |                      |
| Plus CY Advance Procurement <i>(\$ in Millions)</i>                                                                                    |                     |               |                      | -                   |               | -                                                                        |                     | -             |                      | -                   |               | -                                                                    |                     | -             |                      |                     |               |                      |
| Total Obligation Authority <i>(\$ in Millions)</i>                                                                                     |                     |               |                      | 69.031              |               | 23.698                                                                   |                     | 16.667        |                      | 14.209              |               | 2.000                                                                |                     | 16.209        |                      |                     |               |                      |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Initial Spares <i>(\$ in Millions)</i>                                                                                                 |                     |               |                      | -                   |               | -                                                                        |                     | -             |                      | -                   |               | -                                                                    |                     | -             |                      |                     |               |                      |
| Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>                                                                                 |                     |               |                      | -                   |               | -                                                                        |                     | -             |                      | -                   |               | -                                                                    |                     | -             |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                         |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                          | Prior Years         |               |                      | FY 2017             |               |                                                                          | FY 2018             |               |                      | FY 2019 Base        |               |                                                                      | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                        | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                 | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Hardware - 1V045 Access Systems & Subsystems Cost                                                                                      |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup> (1)                                                                                    | 245.090             | 245           | 60.047               | 236.422             | 90            | 21.278                                                                   | 236.305             | 59            | 13.942               | 238.791             | 46            | 10.984                                                               | 222.222             | 9             | 2.000                | 236.073             | 55            | 12.984               |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 60.047               | -                   | -             | 21.278                                                                   | -                   | -             | 13.942               | -                   | -             | 10.984                                                               | -                   | -             | 2.000                | -                   | -             | 12.984               |
| Subtotal: Hardware - 1V045 Access Systems & Subsystems Cost                                                                            | -                   | -             | 60.047               | -                   | -             | 21.278                                                                   | -                   | -             | 13.942               | -                   | -             | 10.984                                                               | -                   | -             | 2.000                | -                   | -             | 12.984               |
| Hardware - GDX6D - Global Signal Analysis Equipment Cost                                                                               |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| 2.1.1) Global Signal Analysis Laboratory (GSAL) NAVIFOR [60] <sup>(†)</sup>                                                            | 1,972.333           | 3             | 5.917                | 746.000             | 1             | 0.746                                                                    | 783.000             | 1             | 0.783                | 772.000             | 1             | 0.772                                                                | -                   | -             | -                    | 772.000             | 1             | 0.772                |
| Subtotal: Recurring Cost                                                                                                               | -                   | -             | 5.917                | -                   | -             | 0.746                                                                    | -                   | -             | 0.783                | -                   | -             | 0.772                                                                | -                   | -             | -                    | -                   | -             | 0.772                |
| Subtotal: Hardware - GDX6D - Global Signal Analysis Equipment Cost                                                                     | -                   | -             | 5.917                | -                   | -             | 0.746                                                                    | -                   | -             | 0.783                | -                   | -             | 0.772                                                                | -                   | -             | -                    | -                   | -             | 0.772                |
| Hardware - GDX6D - System Integration and Installation of Hardware Cost                                                                |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                         |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |               |                                                                      |                     |               |                      |                     |               |                      |
| 3.1.1) System Intergration & Installation of Hardware (FIOC) NAVIFOR [60] <sup>(†)</sup>                                               | -                   | -             | -                    | 670.000             | 1             | 0.670                                                                    | 741.000             | 1             | 0.741                | 739.000             | 1             | 0.739                                                                | -                   | -             | -                    | 739.000             | 1             | 0.739                |

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| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                          |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     | Date: February 2018 |                                                                      |                     |               |                      |                     |               |                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|--------------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------------|----------------------------------------------------------------------|---------------------|---------------|----------------------|---------------------|---------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16                                                                                                                                                                                                         |                     |               |                      |                     |               | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip |                     |               |                      |                     |                     | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |                     |               |                      |                     |               |                      |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                  |                     |               |                      |                     |               |                                                                          |                     |               |                      | MDAP/MAIS Code:     |                     |                                                                      |                     |               |                      |                     |               |                      |
| Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.                                                                                                                                                                                    |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |
| Cost Elements                                                                                                                                                                                                                                                                     | Prior Years         |               |                      | FY 2017             |               |                                                                          | FY 2018             |               |                      | FY 2019 Base        |                     |                                                                      | FY 2019 OCO         |               |                      | FY 2019 Total       |               |                      |
|                                                                                                                                                                                                                                                                                   | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M)                                                     | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each)       | Total Cost<br>(\$ M)                                                 | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) | Unit Cost<br>(\$ K) | Qty<br>(Each) | Total Cost<br>(\$ M) |
| Subtotal: Recurring Cost                                                                                                                                                                                                                                                          | -                   | -             | -                    | -                   | -             | 0.670                                                                    | -                   | -             | 0.741                | -                   | -                   | 0.739                                                                | -                   | -             | -                    | -                   | -             | 0.739                |
| Subtotal: Hardware - GDX6D - System Integration and Installation of Hardware Cost                                                                                                                                                                                                 | -                   | -             | -                    | -                   | -             | 0.670                                                                    | -                   | -             | 0.741                | -                   | -                   | 0.739                                                                | -                   | -             | -                    | -                   | -             | 0.739                |
| Hardware - EW Fleet Synthetic Trainer Consolidation Cost                                                                                                                                                                                                                          |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                                                                                                                                                                    |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |
| 4.1.1) EW Fleet Synthetic Trainer Consolidation <sup>(†)</sup>                                                                                                                                                                                                                    | -                   | -             | -                    | -                   | -             | -                                                                        | 153.000             | 1             | 0.153                | 159.000             | 1                   | 0.159                                                                | -                   | -             | -                    | 159.000             | 1             | 0.159                |
| Subtotal: Recurring Cost                                                                                                                                                                                                                                                          | -                   | -             | -                    | -                   | -             | -                                                                        | -                   | -             | 0.153                | -                   | -                   | 0.159                                                                | -                   | -             | -                    | -                   | -             | 0.159                |
| Subtotal: Hardware - EW Fleet Synthetic Trainer Consolidation Cost                                                                                                                                                                                                                | -                   | -             | -                    | -                   | -             | -                                                                        | -                   | -             | 0.153                | -                   | -                   | 0.159                                                                | -                   | -             | -                    | -                   | -             | 0.159                |
| Hardware - Fleet Synthetic Training (FST) SIGINT / C-ISR Cost                                                                                                                                                                                                                     |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |
| Recurring Cost                                                                                                                                                                                                                                                                    |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |
| 5.1.1) Tier 1 TS/SCI NCTE & VOIP Procurement & Installation <sup>(†)</sup>                                                                                                                                                                                                        | -                   | -             | -                    | -                   | -             | -                                                                        | 396.000             | 1             | 0.396                | 300.000             | 1                   | 0.300                                                                | -                   | -             | -                    | 300.000             | 1             | 0.300                |
| 5.1.2) Tier 1 Life Cycle Management (LCM) <sup>(†)</sup>                                                                                                                                                                                                                          | -                   | -             | -                    | -                   | -             | -                                                                        | 159.000             | 1             | 0.159                | 202.000             | 1                   | 0.202                                                                | -                   | -             | -                    | 202.000             | 1             | 0.202                |
| 5.1.5) Fleet Training Wholeness (FTW) <sup>(†)</sup>                                                                                                                                                                                                                              | -                   | -             | -                    | -                   | -             | -                                                                        | -                   | -             | -                    | 700.000             | 1                   | 0.700                                                                | -                   | -             | -                    | 700.000             | 1             | 0.700                |
| Subtotal: Recurring Cost                                                                                                                                                                                                                                                          | -                   | -             | -                    | -                   | -             | -                                                                        | -                   | -             | 0.555                | -                   | -                   | 1.202                                                                | -                   | -             | -                    | -                   | -             | 1.202                |
| Subtotal: Hardware - Fleet Synthetic Training (FST) SIGINT / C-ISR Cost                                                                                                                                                                                                           | -                   | -             | -                    | -                   | -             | -                                                                        | -                   | -             | 0.555                | -                   | -                   | 1.202                                                                | -                   | -             | -                    | -                   | -             | 1.202                |
| Support - 1V555 Production Support Cost                                                                                                                                                                                                                                           |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |
| 6.1) Production Support                                                                                                                                                                                                                                                           | -                   | -             | 3.067                | -                   | -             | 1.004                                                                    | -                   | -             | 0.493                | -                   | -                   | 0.353                                                                | -                   | -             | -                    | -                   | -             | 0.353                |
| Subtotal: Support - 1V555 Production Support Cost                                                                                                                                                                                                                                 | -                   | -             | 3.067                | -                   | -             | 1.004                                                                    | -                   | -             | 0.493                | -                   | -                   | 0.353                                                                | -                   | -             | -                    | -                   | -             | 0.353                |
| Gross/Weapon System Cost                                                                                                                                                                                                                                                          | -                   | -             | 69.031               | -                   | -             | 23.698                                                                   | -                   | -             | 16.667               | -                   | -                   | 14.209                                                               | -                   | -             | 2.000                | -                   | -             | 16.209               |
| Remarks:<br>[Hardware/Recurring] [P5 / Fleet Synthetic Training (FST) SIGINT/C-ISR]: Fleet Synthetic Training (FST) SIGINT/C-ISR: In FY 18 and out, this will fund Life Cycle Management (LCM) of the TS/SCI NCTE node on the East Coast and 14 Portable Embarkation Kits (PEKs). |                     |               |                      |                     |               |                                                                          |                     |               |                      |                     |                     |                                                                      |                     |               |                      |                     |               |                      |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------|
| Exhibit P-5, Cost Analysis: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                          | Date: February 2018                                                  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |
| ID Code (A=Service Ready, B=Not Service Ready) :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                          | MDAP/MAIS Code:                                                      |
| (†) indicates the presence of a P-5a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                          |                                                                      |
| <p><b>Footnotes:</b></p> <p>(1) Funding increase from FY18 to FY19 reflects the continuation of satisfying signals exploitation gaps and Signals of Interest (SOI). Quantity and unit cost of Cryptologic Carry-on Program (CCOP) systems and subsystems vary because procurements are in response to current Combatant Command fleet requirements as well as the Signals of Interest (SOI) and target threat list which is updated twice a year. CCOP system and subsystem unit costs range from \$.050M to \$.900M, with the exception of Maritime Toxic Pen (MTP) which is priced at \$2.150M per system. The unit cost listed above represents the average price per system.</p> |                                                                          |                                                                      |

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| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy                             |             |                     |                                                                          |                                      |                                |               |                              | Date: February 2018                                                  |                     |                        |                               |                   |
|------------------------------------------------------------------------------------------|-------------|---------------------|--------------------------------------------------------------------------|--------------------------------------|--------------------------------|---------------|------------------------------|----------------------------------------------------------------------|---------------------|------------------------|-------------------------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16                |             |                     | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip |                                      |                                |               |                              | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |                     |                        |                               |                   |
| Cost Elements                                                                            | O<br>C<br>O | FY                  | Contractor and Location                                                  | Method/Type<br>or<br>Funding Vehicle | Location of PCO                | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each)                                                        | Unit Cost<br>(\$ K) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup>                                          |             | 2017 <sup>(2)</sup> | VARIOUS <sup>(3)</sup> / VARIOUS                                         | Various                              | SSC PAC/SSC LANT               | Feb 2017      | Jul 2017                     | 79                                                                   | 236.428             | Y                      |                               | Oct 2016          |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup>                                          | ✓           | 2017                | VARIOUS <sup>(3)</sup> / VARIOUS                                         | Various                              | ** NO PCO **                   | Oct 2016      | Mar 2017                     | 11                                                                   | 236.400             | Y                      |                               |                   |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup>                                          |             | 2018                | VARIOUS <sup>(3)</sup> / VARIOUS                                         | C / TBD                              | SSC PAC/SSC LANT               | Feb 2018      | Jul 2018                     | 36                                                                   | 237.833             | N                      | Apr 2018                      | Oct 2017          |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup>                                          | ✓           | 2018                | VARIOUS <sup>(3)</sup> / VARIOUS                                         | C / TBD                              | SSC PAC/SSC LANT               | Feb 2018      | Jul 2018                     | 23                                                                   | 233.913             | N                      | Apr 2018                      | Oct 2017          |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup>                                          |             | 2019                | VARIOUS <sup>(3)</sup> / VARIOUS                                         | C / TBD                              | SSC PAC/SSC LANT               | Feb 2019      | Jul 2019                     | 46                                                                   | 238.791             | N                      | Apr 2019                      | Oct 2018          |
| 1.1.1) CCOP Systems & Subsystems <sup>(†)</sup>                                          | ✓           | 2019                | VARIOUS <sup>(3)</sup> / VARIOUS                                         | C / TBD                              | SSC PAC/SSC LANT               | Feb 2019      | Jul 2019                     | 9                                                                    | 222.222             | N                      | Apr 2019                      | Oct 2018          |
| 2.1.1) Global Signal Analysis Laboratory (GSAL) NAVIFOR [60]                             |             | 2017                | NAVAIR / Patuxent River                                                  | MIPR                                 | SPAWAR San Diego               | Apr 2017      | Apr 2017                     | 1                                                                    | 746.000             | N                      | Nov 2017                      |                   |
| 2.1.1) Global Signal Analysis Laboratory (GSAL) NAVIFOR [60]                             |             | 2018                | NAVAIR / Patuxent River                                                  | MIPR                                 | SPAWAR San Diego               | Feb 2018      | Feb 2018                     | 1                                                                    | 783.000             | N                      | Feb 2018                      |                   |
| 2.1.1) Global Signal Analysis Laboratory (GSAL) NAVIFOR [60]                             |             | 2019                | NAVAIR / Patuxent River                                                  | C / TBD                              | SPAWAR                         | Feb 2019      | Feb 2019                     | 1                                                                    | 772.000             | N                      | Feb 2019                      |                   |
| 3.1.1) System Intergration & Installation of Hardware (FIOC) NAVIFOR [60] <sup>(†)</sup> |             | 2017                | SPAWAR / San Diego                                                       | C / FFP                              | SPAWAR San Diego               | Mar 2017      | Sep 2017                     | 1                                                                    | 670.000             | N                      | Apr 2017                      |                   |
| 3.1.1) System Intergration & Installation of Hardware (FIOC) NAVIFOR [60] <sup>(†)</sup> |             | 2018                | SPAWAR / San Diego                                                       | C / FFP                              | SPAWAR San Diego               | Feb 2018      | Aug 2018                     | 1                                                                    | 741.000             | N                      | Nov 2017                      |                   |
| 3.1.1) System Intergration & Installation of Hardware (FIOC) NAVIFOR [60] <sup>(†)</sup> |             | 2019                | SPAWAR / San Diego                                                       | C / FFP                              | SPAWAR San Diego               | Sep 2019      | Mar 2020                     | 1                                                                    | 739.000             | N                      | Nov 2018                      |                   |
| 4.1.1) EW Fleet Synthethic Trainer Consolidation                                         |             | 2018                | SSC PAC / San Diego                                                      | MIPR                                 | SSC PAC (Stallion Engineering) | Feb 2018      | Jul 2018                     | 1                                                                    | 153.000             | N                      | Sep 2018                      |                   |
| 4.1.1) EW Fleet Synthethic Trainer Consolidation                                         |             | 2019                | SSC PAC / San Diego                                                      | MIPR                                 | SSC PAC (Stallion Engineering) | Feb 2019      | Jul 2019                     | 1                                                                    | 159.000             | N                      | Aug 2019                      |                   |
| 5.1.1) Tier 1 TS/SCI NCTE & VOIP Procurement & Installation                              |             | 2018                | Alion Science & Technology / McLean, VA                                  | C / FFP                              | DTIC                           | Oct 2017      | Oct 2017                     | 1                                                                    | 396.000             | N                      | Jan 2018                      | Oct 2016          |
| 5.1.2) Tier 1 Life Cycle Management (LCM)                                                |             | 2018                | Alion Science & Technology / McLean, VA                                  | C / FFP                              | DTIC                           | Oct 2017      | Oct 2017                     | 1                                                                    | 159.000             | N                      | Jan 2018                      | Oct 2016          |
| 5.1.5) Fleet Training Wholeness (FTW)                                                    |             | 2019                | Alion Science & Technology / McLean, VA                                  | C / FFP                              | DTIC                           | Jan 2019      | Jan 2019                     | 1                                                                    | 700.000             | N                      | Oct 2018                      | Oct 2018          |
|                                                                                          |             |                     |                                                                          |                                      |                                |               |                              |                                                                      |                     |                        |                               |                   |

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|---------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------|
| Exhibit P-5a, Procurement History and Planning: PB 2019 Navy              |                                                                          | Date: February 2018                                                  |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16 | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |

(†) indicates the presence of a P-21

Footnotes:

(2) FY17 Vendors: BIT systems, TICOM, KAB, SRC

(3) Cryptologic Carry-on Program (CCOP) equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare/Cryptologic System Operational Requirements Document and specific execution year fleet requirements as defined by the Signals Of Interest (SOI) Integrated Product Team (IPT). Due to a continually changing threat environment, detailed requirements are dynamic, contract award timelines and equipment procured varies each year by quantity and type.

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| Exhibit P-21, Production Schedule: PB 2019 Navy                           |       |      |         |          |                            |                     |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    | Date: February 2018                                                  |     |     |     |     |     |     |     |     |     |     |         |   |    |    |
|---------------------------------------------------------------------------|-------|------|---------|----------|----------------------------|---------------------|--------------------|-----|-----|--------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|----------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|---|----|----|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16 |       |      |         |          |                            |                     |                    |     |     | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip |     |     |     |     |     |     |     |     |                    | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |     |     |     |     |     |     |     |     |     |     |         |   |    |    |
| Cost Elements<br><i>(Units in Each)</i>                                   |       |      |         |          |                            |                     | Fiscal Year 2017   |     |     |                                                                          |     |     |     |     |     |     |     |     | Fiscal Year 2018   |                                                                      |     |     |     |     |     |     |     |     |     |     | BALANCE |   |    |    |
| OCO                                                                       | MFR # | FY   | SERVICE | PROC QTY | ACCEPT PRIOR TO 1 OCT 2016 | BAL DUE AS OF 1 OCT | Calendar Year 2017 |     |     |                                                                          |     |     |     |     |     |     |     |     | Calendar Year 2018 |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   |    |    |
|                                                                           |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                      | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                | NOV                                                                  | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |         |   |    |    |
| 1.1.1) CCOP Systems & Subsystems <sup>(1)</sup>                           |       |      |         |          |                            |                     |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   |    |    |
| Prior Years Deliveries: 245                                               |       |      |         |          |                            |                     |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   |    |    |
|                                                                           | 1     | 2017 | NAVY    | 79       | 0                          | 79                  |                    |     |     |                                                                          | A - | -   | -   | -   | -   | 10  | 10  | 10  | 10                 | 10                                                                   | 10  | 10  | 9   |     |     |     |     |     |     |     |         |   |    | 0  |
| ✓                                                                         | 1     | 2017 | NAVY    | 11       | 0                          | 11                  | A -                | -   | -   | -                                                                        | -   | 5   | 6   |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   | 0  |    |
|                                                                           | 1     | 2018 | NAVY    | 36       | 0                          | 36                  |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     | A - | -   | -   | -   | -   | 5       | 5 | 5  | 21 |
| ✓                                                                         | 1     | 2018 | NAVY    | 23       | 0                          | 23                  |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     | A - | -   | -   | -   | -   | 5       | 5 | 5  | 8  |
|                                                                           | 1     | 2019 | NAVY    | 46       | 0                          | 46                  |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   | 46 |    |
| ✓                                                                         | 1     | 2019 | NAVY    | 9        | 0                          | 9                   |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   | 9  |    |
| 3.1.1) System Intergration & Installation of Hardware (FIOC) NAVIFOR [60] |       |      |         |          |                            |                     |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   |    |    |
|                                                                           | 2     | 2017 | NAVY    | 1        | 0                          | 1                   |                    |     |     |                                                                          | A - | -   | -   | -   | -   | -   | -   | 1   |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   |    | 0  |
|                                                                           | 2     | 2018 | NAVY    | 1        | 0                          | 1                   |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     | A - | -   | -   | -   | -   | -       | 1 | 0  |    |
|                                                                           | 2     | 2019 | NAVY    | 1        | 0                          | 1                   |                    |     |     |                                                                          |     |     |     |     |     |     |     |     |                    |                                                                      |     |     |     |     |     |     |     |     |     |     |         |   | 1  |    |
|                                                                           |       |      |         |          |                            |                     | OCT                | NOV | DEC | JAN                                                                      | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                | NOV                                                                  | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |         |   |    |    |

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| Exhibit P-21, Production Schedule: PB 2019 Navy                           |                  |      |         |             |                                        |                              |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             | Date: February 2018                                                  |             |             |             |             |             |             |             |             |             |             |                                 |  |   |   |  |  |   |
|---------------------------------------------------------------------------|------------------|------|---------|-------------|----------------------------------------|------------------------------|------------------|-------------|-------------|--------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|----------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------------|--|---|---|--|--|---|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16 |                  |      |         |             |                                        |                              |                  |             |             | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip |             |             |             |             |             |             |                  |             |             | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |             |             |             |             |             |             |             |             |             |             |                                 |  |   |   |  |  |   |
| Cost Elements<br><i>(Units in Each)</i>                                   |                  |      |         |             |                                        |                              | Fiscal Year 2019 |             |             |                                                                          |             |             |             |             |             |             | Fiscal Year 2020 |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             | B<br>A<br>L<br>A<br>N<br>C<br>E |  |   |   |  |  |   |
| O<br>C<br>C<br>O                                                          | M<br>F<br>R<br># | FY   | SERVICE | PROC<br>QTY | ACCEPT<br>PRIOR<br>TO 1<br>OCT<br>2018 | BAL<br>DUE<br>AS OF<br>1 OCT |                  |             |             | Calendar Year 2019                                                       |             |             |             |             |             |             |                  |             |             | Calendar Year 2020                                                   |             |             |             |             |             |             |             |             |             |             |                                 |  |   |   |  |  |   |
|                                                                           |                  |      |         |             |                                        |                              | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                                              | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G      | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V                                                          | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                                 |  |   |   |  |  |   |
| 1.1.1) CCOP Systems & Subsystems <sup>(1)</sup>                           |                  |      |         |             |                                        |                              |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  |   |   |  |  |   |
| Prior Years Deliveries: 245                                               |                  |      |         |             |                                        |                              |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  |   |   |  |  |   |
|                                                                           | 1                | 2017 | NAVY    | 79          | 79                                     | 0                            |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  | 0 |   |  |  |   |
| ✓                                                                         | 1                | 2017 | NAVY    | 11          | 11                                     | 0                            |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  | 0 |   |  |  |   |
|                                                                           | 1                | 2018 | NAVY    | 36          | 15                                     | 21                           | 5                | 5           | 5           | 5                                                                        | 1           |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  | 0 |   |  |  |   |
| ✓                                                                         | 1                | 2018 | NAVY    | 23          | 15                                     | 8                            | 5                | 3           |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  |   | 0 |  |  |   |
|                                                                           | 1                | 2019 | NAVY    | 46          | 0                                      | 46                           |                  |             |             |                                                                          |             | A -         | -           | -           | -           | -           | 5                | 5           | 5           | 5                                                                    | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 1           | 0           |             |                                 |  |   |   |  |  |   |
| ✓                                                                         | 1                | 2019 | NAVY    | 9           | 0                                      | 9                            |                  |             |             |                                                                          |             | A -         | -           | -           | -           | -           | 5                | 4           |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  |   | 0 |  |  |   |
| 3.1.1) System Intergration & Installation of Hardware (FIOC) NAVIFOR [60] |                  |      |         |             |                                        |                              |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  |   |   |  |  |   |
|                                                                           | 2                | 2017 | NAVY    | 1           | 1                                      | 0                            |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  | 0 |   |  |  |   |
|                                                                           | 2                | 2018 | NAVY    | 1           | 1                                      | 0                            |                  |             |             |                                                                          |             |             |             |             |             |             |                  |             |             |                                                                      |             |             |             |             |             |             |             |             |             |             |                                 |  | 0 |   |  |  |   |
|                                                                           | 2                | 2019 | NAVY    | 1           | 0                                      | 1                            |                  |             |             |                                                                          |             |             |             |             |             |             | A -              | -           | -           | -                                                                    | -           | -           | -           | 1           |             |             |             |             |             |             |                                 |  |   |   |  |  | 0 |
|                                                                           |                  |      |         |             |                                        |                              | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N                                                              | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G      | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V                                                          | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                                 |  |   |   |  |  |   |



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| Exhibit P-21, Production Schedule: PB 2019 Navy                           |                                  |                                |                |              |                                                                          |                    |                      |                      | Date: February 2018                                                  |                    |                      |                      |
|---------------------------------------------------------------------------|----------------------------------|--------------------------------|----------------|--------------|--------------------------------------------------------------------------|--------------------|----------------------|----------------------|----------------------------------------------------------------------|--------------------|----------------------|----------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 16 |                                  |                                |                |              | P-1 Line Item Number / Title:<br>3501 / Cryptologic Communications Equip |                    |                      |                      | Item Number / Title [DODIC]:<br>1 / Cryptologic Communications Equip |                    |                      |                      |
| MFR<br>Ref<br>#                                                           | Manufacturer<br>Name - Location  | Production Rates (Each / Year) |                |              | Procurement Leadtime (Months)                                            |                    |                      |                      |                                                                      |                    |                      |                      |
|                                                                           |                                  | MSR For 2019                   | 1-8-5 For 2019 | MAX For 2019 | Initial                                                                  |                    |                      |                      | Reorder                                                              |                    |                      |                      |
|                                                                           |                                  |                                |                |              | ALT<br>Prior to Oct 1                                                    | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 | ALT<br>Prior to Oct 1                                                | ALT<br>After Oct 1 | Manufacturing<br>PLT | Total<br>After Oct 1 |
| 1                                                                         | VARIOUS <sup>(3)</sup> - VARIOUS | 1                              | 40             | 90           | 0                                                                        | 4                  | 5                    | 9                    | 0                                                                    | 4                  | 5                    | 9                    |
| 2                                                                         | SPAWAR - San Diego               |                                |                |              | 0                                                                        | 0                  | 0                    | 0                    | 0                                                                    | 0                  | 0                    | 0                    |

"A" in the Delivery Schedule indicates the Contract Award Date.

**Note:** Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**Footnotes:**

<sup>(3)</sup> Cryptologic Carry-on Program (CCOP) equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare/Cryptologic System Operational Requirements Document and specific execution year fleet requirements as defined by the Signals Of Interest (SOI) Integrated Product Team (IPT). Due to a continually changing threat environment, detailed requirements are dynamic, contract award timelines and equipment procured varies each year by quantity and type.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|----------------------------------------|--------------|-------------|---------------------------------------------------------------|---------|-------------------------------------|---------|---------|-------------|------------|
| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |         |                                        |              |             |                                                               |         | Date: February 2018                 |         |         |             |            |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 17: Other Electronic Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |         |                                        |              |             | P-1 Line Item Number / Title:<br>3620 / Coast Guard Equipment |         |                                     |         |         |             |            |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |         | Program Elements for Code B Items: N/A |              |             |                                                               |         | Other Related Program Elements: N/A |         |         |             |            |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |         |                                        |              |             |                                                               |         |                                     |         |         |             |            |
| Resource Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Prior Years | FY 2017 | FY 2018                                | FY 2019 Base | FY 2019 OCO | FY 2019 Total                                                 | FY 2020 | FY 2021                             | FY 2022 | FY 2023 | To Complete | Total      |
| Procurement Quantity (Units in Each)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -           | -       | -                                      | -            | -           | -                                                             | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Cost (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 104.986     | 32.291  | 36.584                                 | 40.713       | 0.000       | 40.713                                                        | 60.806  | 68.563                              | 61.321  | 62.574  | Continuing  | Continuing |
| Less PY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -                                                             | -       | -                                   | -       | -       | -           | -          |
| Net Procurement (P-1) (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 104.986     | 32.291  | 36.584                                 | 40.713       | 0.000       | 40.713                                                        | 60.806  | 68.563                              | 61.321  | 62.574  | Continuing  | Continuing |
| Plus CY Advance Procurement (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -           | -       | -                                      | -            | -           | -                                                             | -       | -                                   | -       | -       | -           | -          |
| Total Obligation Authority (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 104.986     | 32.291  | 36.584                                 | 40.713       | 0.000       | 40.713                                                        | 60.806  | 68.563                              | 61.321  | 62.574  | Continuing  | Continuing |
| (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |         |                                        |              |             |                                                               |         |                                     |         |         |             |            |
| Initial Spares (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -           | -       | -                                      | -            | -           | -                                                             | -       | -                                   | -       | -       | -           | -          |
| Flyaway Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -           | -       | -                                      | -            | -           | -                                                             | -       | -                                   | -       | -       | -           | -          |
| Gross/Weapon System Unit Cost (\$ in Dollars)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -           | -       | -                                      | -            | -           | -                                                             | -       | -                                   | -       | -       | -           | -          |
| Description:<br>The FY 2019 funding request was reduced by \$5.000 million to account for the availability of prior year execution balances.<br><br>The Coast Guard Equipment line funds the Coast Guard Combat System Suite for United States Coast Guard (USCG) cutters under the Coast Guard Surface Asset Acquisition Program. Under inter-service agreement (delineated in OPNAVINST 4000.79B), DON plans, programs, and budgets for specific Navy military equipment, systems and logistic support requirements for Coast Guard units to ensure the Coast Guard is prepared to execute naval warfare tasks in consonance with US Navy units. Ship construction and installation costs are funded under the Department of Homeland Security appropriation.<br><br>The Combat Systems and Weapons Suite will be aligned with future naval ship building programs to support commonality among the two Service's systems and meet National Fleet objectives.<br><br>The Combat System Suite must compliment and integrate with Navy Combat Systems. The suite is an appropriate balance of equipment to ensure the Coast Guard is prepared to accomplish the assigned Naval Warfare tasks in concert with US Navy units. The Surface Asset Acquisition Program Combat Suites include the following:<br><br>[P40A / CG001 - SPQ-9B RADAR]: Provides the AN/SPQ-9B radar for the Maritime Security Cutter, Large (WMSL) Class, aka the National Security Cutter, to track surface targets and low fliers in support of potential gun engagements.<br><br>[P40A / IFF AIMS]: Provides the AN/UPX-29A Identification Friend or Foe (IFF) System for the WMSL Class and the Offshore Patrol Cuter (OPC) Class, aka the Maritime Security Cutter, Medium (WMSM). The AN/APX-123 Transponder is procured for the Fast Response Cutter (FRC) aka Patrol Coastal Cutter (WPC).<br><br>[P40A / IFF AIMS TEST HARDWARE WMSM]: Hardware procurement for the IFF AIMS Land-Based Test Site for in support of the WMSM program (non-recurring cost).<br><br>[P40A / CG003 DECOYS MK 53]: Provides the MK 53 Mod 6 Decoy Launching System (DLS) for the WMSL and OPC Classes to provide soft-kill capability.<br><br>[P40A / CG004 SLQ-32]: Provides the AN/SLQ-32 Electronic Warfare System and the Battle Force Electronic Warfare Trainer (BEWT) for the WMSL Class to perform Electronic Support Measures to support soft-kill measures. |             |         |                                        |              |             |                                                               |         |                                     |         |         |             |            |

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| Exhibit P-40, Budget Line Item Justification: PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        | Date: February 2018                                           |
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 17: Other Electronic Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        | P-1 Line Item Number / Title:<br>3620 / Coast Guard Equipment |
| ID Code (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Program Elements for Code B Items: N/A | Other Related Program Elements: N/A                           |
| Line Item MDAP/MAIS Code: N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                        |                                                               |
| <p>[P40A / CG005 MK 46/MK 20 OPTICAL SIGHT]: Provides the MK 46 Mod 1 Optical Sighting System (OSS) for WMSL 750-753. The MK 20 Mod 0 Electro-Optical Sighting System (EOSS) is procured for WMSL 754-757 and the OPC. These sighting systems are components of the MK48 Gun Weapon System (GWS) and provide fire control optical daytime and thermal imaging (infrared) sensor, and laser range finding to support engagements of hostile surface and air targets.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |                                                               |
| <p>[P40A / CG006 COMBAT SYSTEM INTEGRATION]: Ensures successful integration and system interoperability of Navy type equipment that affects the Combat System of USCG National Security Cutters (WMSLs), FRCs, OPC, and the '270 Medium Endurance Cutter (WMEC) modernization effort.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                               |
| <p>[P40A / CG007 MULTI-MODE RADAR]: Provides the Multi-Mode Radar (MMR) to perform surface search, air search, and air traffic advisory control object detection and tracking functions for the OPC.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                                                               |
| <p>FY2017-2018 MMR integration includes software upgrade to correlate radar contacts, radar video tracks and IFF information. Also includes the MMR hardware integration of the IFF antenna onto the MMR antenna (drawing updates and technical publications).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |                                                               |
| <p>[P40A / CG008 ATHENA CCD]: ATHENA Control, Correlation &amp; Display (CCD) System for the OPC. The ATHENA CCD uses existing AEGIS BSL 9, Common Source Library (CSL) code to control and display MMR and IFF data. The systems will also provide target queuing for Gun Weapon System engagement.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                                                               |
| <p>FY2017-2018 ATHENA Combat System Control and Display integration supports software upgrade and hardware/software integration of the Technical Insertion (TI)-16 Common Display System for the MMR and IFF to provide data to the AN/SLQ-32(V)6 and the MK48 Gun Weapon System for target engagement on the OPC. Includes safety, certification, technical documentation, and information assurance efforts.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |                                                               |
| <p>[P40A / OPC C4I]: Funds are required for the procurement of Command, Control, Communications, Computers, and Intelligence (PEO C4I) for the new OPC Class, the Coast Guard's highest acquisition priority. Under inter-service agreement, the Navy budgets for specific Navy military equipment, systems and logistic support requirements for Coast Guard units to ensure the Coast Guard is prepared to execute naval warfare tasks in consonance with US Navy units. Ship construction and installation costs are funded under the Department of Homeland Security appropriation. Specific C4I systems to be procured include: AN/SRC-65 VHF/UHF Line of Sight Satellite Communication, ARC-210 Radios (Qty 11 per ship); OE-570A Antenna Qty (2); Navy Modular Automated Communications System (AN/SYQ-26) Qty (1);Fleet Broadcast Qty (8);CRYPTO Qty (1); OA-9277A Antenna Coupler Qty (3); and Command and Control Processor (C2P) AN/UYQ-120 Qty (2).</p> |                                        |                                                               |

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| <b>Exhibit P-40, Budget Line Item Justification:</b> PB 2019 Navy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |                    |                                               |                       |                                              |                                                                      |                                              | <b>Date:</b> February 2018                   |                                              |                                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip /<br>BSA 17: Other Electronic Support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |                    |                                               |                       |                                              | <b>P-1 Line Item Number / Title:</b><br>3620 / Coast Guard Equipment |                                              |                                              |                                              |                                              |
| <b>ID Code</b> (A=Service Ready, B=Not Service Ready): A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       |                    | <b>Program Elements for Code B Items:</b> N/A |                       |                                              | <b>Other Related Program Elements:</b> N/A                           |                                              |                                              |                                              |                                              |
| <b>Line Item MDAP/MAIS Code:</b> N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       |                    |                                               |                       |                                              |                                                                      |                                              |                                              |                                              |                                              |
| <b>Exhibits Schedule</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       |                    |                                               |                       | <b>Prior Years</b>                           | <b>FY 2017</b>                                                       | <b>FY 2018</b>                               | <b>FY 2019 Base</b>                          | <b>FY 2019 OCO</b>                           | <b>FY 2019 Total</b>                         |
| <b>Exhibit Type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Title*</b>                         | <b>Subexhibits</b> | <b>ID CD</b>                                  | <b>MDAP/MAIS Code</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b>                         | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> | <b>Quantity / Total Cost (Each) / (\$ M)</b> |
| P-40a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Coast Guard Equipment                 | P-5a               |                                               |                       | - / 104.986                                  | - / 32.291                                                           | - / 36.584                                   | - / 40.713                                   | - / -                                        | - / 40.713                                   |
| <b>P-40</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Total Gross/Weapon System Cost</b> |                    |                                               |                       | <b>- / 104.986</b>                           | <b>- / 32.291</b>                                                    | <b>- / 36.584</b>                            | <b>- / 40.713</b>                            | <b>- / 0.000</b>                             | <b>- / 40.713</b>                            |
| <small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |                    |                                               |                       |                                              |                                                                      |                                              |                                              |                                              |                                              |
| <small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |                    |                                               |                       |                                              |                                                                      |                                              |                                              |                                              |                                              |
| <p><b>Justification:</b><br/>           The FY 2019 funding request was reduced by \$5.000 million to account for the availability of prior year execution balances.</p> <p>The growth in the FY 2019 funding request is attributable to increases by the Department to procure Navy Type/Navy Owned (NT/NO) combat system elements for the Congressionally added WMSL 759 to the USCG's budget. Additional funding was added across the FYDP to support the '270 Medium Endurance Cutter (WMEC) Combat System Modernization effort which will replace all unsupportable systems across the USCG cutter class achieving expected service life beyond FY 2033.</p> <p>Funds procure NT/NO combat systems, support equipment, Integrated Logistics Support (ILS), certification, test and production support for USCG National Security Cutter (WMSL Class), Fast Response Cutter (WPC Class) and Offshore patrol Cutter (WMSM Class) being constructed under the Coast Guard's Surface Asset Acquisition Program. These efforts are ongoing. Funds provide AN/SPQ-9B ILS support for WMSL 758; procure IFF AN/APX-123(V) equipment, ILS and certification support for WPCs; procure IFF UPX-29A equipment, INCO spares, and ILS support for WMSM 3, WMSL 759 and WMSL 760; support IFF ILS and multi-year certifications for WMSLs 756-758; procure MK53 MOD 10 DLS for WMSM 3 and WMSL 759; provide BEWT for WMSL 758; procure the EOSS for WMSL 759; provide combat system integration for WMSLs 757-760, WPCs 1131-1140, and WMSMs 3 &amp; 4; procure the Multi-mode Radar for the WMSM 3; provide MMR hardware/software integration for the WMSM and 270' Modernization efforts; and provide WMSM combat system integration of the Technical Insertion (TI)-16 Common Display System and integration support for the ATHENA Control Correlation and Display (CCD) System.</p> <p>Funds procure navy specific equipment, C4I systems, and integrated logistic support for the USCG OPCs under an inter-service agreement. FY 2019 funds support AN/SRC-65 VHF/UHF Line of Sight Satellite Communication ARC-210 Radios; OE-570A Antenna; Navy Modular Automated Communications System (AN/SYQ-26); Fleet Broadcast; CRYPTO; A-9277A Antenna Coupler and Command and Control Processor (C2P) AN/UYQ-120.</p> |                                       |                    |                                               |                       |                                              |                                                                      |                                              |                                              |                                              |                                              |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |            |                                                               |                |            |                   |                |            |                   | Date: February 2018                              |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|------------|---------------------------------------------------------------|----------------|------------|-------------------|----------------|------------|-------------------|--------------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 17   |       |                |                |            |                   |                |            | P-1 Line Item Number / Title:<br>3620 / Coast Guard Equipment |                |            |                   |                |            |                   | Aggregated Items Title:<br>Coast Guard Equipment |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |            |                                                               | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                      |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                             | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                   | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 1) CG001 - SPQ-9B RADAR                                                     |       |                |                |            |                   |                |            |                                                               |                |            |                   |                |            |                   |                                                  |            |                   |                |            |                   |
| 1.1) SPQ-9B ILS/TEST SUPPORT                                                | A     |                | -              | -          | 5.890             | -              | -          | 0.370                                                         | -              | -          | 0.444             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 1.2) SPQ-9B RADAR (1)                                                       | A     |                | -              | -          | -                 | -              | -          | -                                                             | 6,081K         | 1          | 6.081             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| Subtotal: 1) CG001 - SPQ-9B RADAR                                           |       |                | -              | -          | 5.890             | -              | -          | 0.370                                                         | -              | -          | 6.525             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 2) IFF AIMS                                                                 |       |                |                |            |                   |                |            |                                                               |                |            |                   |                |            |                   |                                                  |            |                   |                |            |                   |
| 2.2) IFF AIMS CERTIFICATION WPC                                             | A     |                | -              | -          | 0.556             | -              | -          | 0.125                                                         | -              | -          | 0.127             | -              | -          | 0.129             | -                                                | -          | -                 | -              | -          | 0.129             |
| 2.3) IFF AIMS ILS SUPPORT WPC                                               | A     |                | -              | -          | 1.246             | -              | -          | 0.214                                                         | -              | -          | 0.218             | -              | -          | 0.222             | -                                                | -          | -                 | -              | -          | 0.222             |
| 2.4) IFF AIMS EQUIPMENT WPC (2)(t)                                          | A     |                | 114,896.55     | 29         | 3.332             | 103,250.00     | 3          | 0.310                                                         | 142,500.00     | 3          | 0.428             | 106,000.00     | 3          | 0.318             | -                                                | -          | -                 | 106,000.00     | 3          | 0.318             |
| 2.5) IFF EQUIPMENT/ INCO SPARES WMSM (3)(t)                                 | A     |                | -              | -          | -                 | 110,000.00     | 1          | 0.110                                                         | 477,000.00     | 1          | 0.477             | 509,000.00     | 1          | 0.509             | -                                                | -          | -                 | 509,000.00     | 1          | 0.509             |
| 2.6) IFF UPX-46 WMSM (4)(t)                                                 | A     |                | -              | -          | -                 | 912,000.00     | 1          | 0.912                                                         | 929,000.00     | 1          | 0.929             | 947,000.00     | 1          | 0.947             | -                                                | -          | -                 | 947,000.00     | 1          | 0.947             |
| 2.7) IFF ILS SUPPORT WMSM                                                   | A     |                | -              | -          | -                 | -              | -          | 0.225                                                         | -              | -          | 0.229             | -              | -          | 0.233             | -                                                | -          | -                 | -              | -          | 0.233             |
| 2.8) IFF AIMS TEST HARDWARE WMSM (5)                                        | A     |                | -              | -          | -                 | -              | -          | -                                                             | -              | -          | -                 | -              | -          | 1.223             | -                                                | -          | -                 | -              | -          | 1.223             |
| 2.9) IFF AIMS WMSL (t)                                                      | A     |                | 4,435K         | 2          | 8.870             | -              | -          | -                                                             | 477,000.00     | 1          | 0.477             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 2.10) IFF AIMS UPX-29 LLT WMSL (t)                                          | A     |                | 259,000.00     | 3          | 0.777             | -              | -          | -                                                             | 929,000.00     | 1          | 0.929             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 2.11) IFF AIMS MODIFICATION KITS                                            | A     |                | 81,250.00      | 4          | 0.325             | -              | -          | -                                                             | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 2.12) IFF AIMS SUPPORT EQUIPMENT WMSL (t)                                   | A     |                | 83,285.71      | 7          | 0.583             | 96,000.00      | 1          | 0.096                                                         | -              | -          | -                 | 96,000.00      | 3          | 0.288             | -                                                | -          | -                 | 96,000.00      | 3          | 0.288             |
| 2.13) IFF AIMS PRODUCTION SUPPORT WMSL                                      | A     |                | -              | -          | 0.678             | -              | -          | 0.068                                                         | -              | -          | 0.035             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 2.14) IFF AIMS ILS/TEST SUPPORT WMSL (6)                                    | A     |                | -              | -          | 0.888             | -              | -          | 0.046                                                         | -              | -          | 0.277             | -              | -          | 0.975             | -                                                | -          | -                 | -              | -          | 0.975             |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy |       |                |                |            |                   |                |                                                               |                   |                |            |                   |                |            |                   | Date: February 2018                              |            |                   |                |            |                   |
|-----------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|----------------|---------------------------------------------------------------|-------------------|----------------|------------|-------------------|----------------|------------|-------------------|--------------------------------------------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 17   |       |                |                |            |                   |                | P-1 Line Item Number / Title:<br>3620 / Coast Guard Equipment |                   |                |            |                   |                |            |                   | Aggregated Items Title:<br>Coast Guard Equipment |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                 | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017        |                                                               |                   | FY 2018        |            |                   | FY 2019 Base   |            |                   | FY 2019 OCO                                      |            |                   | FY 2019 Total  |            |                   |
|                                                                             |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each)                                                    | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                   | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 2.15) IFF AIMS CERTIFICATION WMSL                                           | A     |                | -              | -          | 0.384             | -              | -                                                             | 0.075             | -              | -          | 0.079             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| Subtotal: 2) IFF AIMS                                                       |       |                | -              | -          | 17.639            | -              | -                                                             | 2.181             | -              | -          | 4.205             | -              | -          | 4.844             | -                                                | -          | -                 | -              | -          | 4.844             |
| 3) CG003 DECOYS MK 53                                                       |       |                |                |            |                   |                |                                                               |                   |                |            |                   |                |            |                   |                                                  |            |                   |                |            |                   |
| 3.1) MK53 MOD 6/10 DLS WMSM <sup>(†)</sup>                                  | A     |                | -              | -          | -                 | 1,208K         | 1                                                             | 1.208             | 1,231K         | 1          | 1.231             | 1,254K         | 1          | 1.254             | -                                                | -          | -                 | 1,254K         | 1          | 1.254             |
| 3.2) MK53 MOD 6/10 DLS WMSL <sup>(†)</sup>                                  | A     |                | -              | -          | -                 | -              | -                                                             | -                 | 1,231K         | 1          | 1.231             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 3.3) MK53 ILS/TEST SUPPORT                                                  | A     |                | -              | -          | 3.904             | -              | -                                                             | 0.375             | -              | -          | 0.979             | -              | -          | 0.649             | -                                                | -          | -                 | -              | -          | 0.649             |
| Subtotal: 3) CG003 DECOYS MK 53                                             |       |                | -              | -          | 3.904             | -              | -                                                             | 1.583             | -              | -          | 3.441             | -              | -          | 1.903             | -                                                | -          | -                 | -              | -          | 1.903             |
| 4) CG004 SLQ-32                                                             |       |                |                |            |                   |                |                                                               |                   |                |            |                   |                |            |                   |                                                  |            |                   |                |            |                   |
| 4.1) BEWT WMSL <sup>(7)</sup>                                               | A     |                | 1,053K         | 1          | 1.053             | -              | -                                                             | 0.022             | -              | -          | 0.022             | -              | -          | 0.022             | -                                                | -          | -                 | -              | -          | 0.022             |
| 4.2) SLQ-32 ELECTRONIC WARFARE SYSTEM                                       | A     |                | 14,090K        | 2          | 28.180            | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 4.3) SLQ-32 REFURBISHMENT                                                   | A     |                | 2,310K         | 3          | 6.931             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 4.4) SLQ-32 SUPPORT EQUIPMENT                                               | A     |                | 159,000.00     | 1          | 0.159             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 4.5) SLQ-32 PRODUCTION SUPPORT WMSL                                         | A     |                | -              | -          | 2.339             | -              | -                                                             | 0.240             | -              | -          | 0.236             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 4.6) SLQ-32 ILS/TEST SUPPORT                                                | A     |                | -              | -          | 1.888             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 4.7) SLQ-32 CERTIFICATION                                                   | A     |                | -              | -          | 0.338             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| Subtotal: 4) CG004 SLQ-32                                                   |       |                | -              | -          | 40.888            | -              | -                                                             | 0.262             | -              | -          | 0.258             | -              | -          | 0.022             | -                                                | -          | -                 | -              | -          | 0.022             |
| 5) CG005 MK 46/MK 20 OPTICAL SIGHT                                          |       |                |                |            |                   |                |                                                               |                   |                |            |                   |                |            |                   |                                                  |            |                   |                |            |                   |
| 5.1) MK20 (EOSS) OPC <sup>(†)</sup>                                         | A     |                | -              | -          | -                 | 1,690K         | 1                                                             | 1.690             | -              | -          | -                 | 1,755K         | 3          | 5.265             | -                                                | -          | -                 | 1,755K         | 3          | 5.265             |
| 5.2) ILS/TEST SUPPORT                                                       | A     |                | -              | -          | -                 | -              | -                                                             | 0.225             | -              | -          | -                 | -              | -          | 0.466             | -                                                | -          | -                 | -              | -          | 0.466             |
| 5.3) MODIFICATION KITS WMSL                                                 | A     |                | -              | -          | 0.297             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 5.4) MK 46/MK 20 WMSL <sup>(†)</sup>                                        | A     |                | 14,525K        | 1          | 14.525            | -              | -                                                             | -                 | 1,722K         | 1          | 1.722             | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 5.5) DATA WMSL                                                              | A     |                | -              | -          | 0.286             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |
| 5.6) SOFTWARE WMSL                                                          | A     |                | -              | -          | 2.402             | -              | -                                                             | -                 | -              | -          | -                 | -              | -          | -                 | -                                                | -          | -                 | -              | -          | -                 |

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| Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2019 Navy                       |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            | Date: February 2018                              |                |            |                   |                |            |                   |
|---------------------------------------------------------------------------------------------------|-------|----------------|----------------|------------|-------------------|---------------------------------------------------------------|------------|-------------------|----------------|------------|-------------------|----------------|------------|--------------------------------------------------|----------------|------------|-------------------|----------------|------------|-------------------|
| Appropriation / Budget Activity / Budget Sub Activity:<br>1810N / 02 / 17                         |       |                |                |            |                   | P-1 Line Item Number / Title:<br>3620 / Coast Guard Equipment |            |                   |                |            |                   |                |            | Aggregated Items Title:<br>Coast Guard Equipment |                |            |                   |                |            |                   |
| Item Number / Title [DODIC]                                                                       | ID CD | MDAP/MAIS Code | Prior Years    |            |                   | FY 2017                                                       |            |                   | FY 2018        |            |                   | FY 2019 Base   |            |                                                  | FY 2019 OCO    |            |                   | FY 2019 Total  |            |                   |
|                                                                                                   |       |                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$)                                                | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M)                                | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) | Unit Cost (\$) | Qty (Each) | Total Cost (\$ M) |
| 5.7) PROGRAM SUPPORT WMSL                                                                         | A     |                | -              | -          | 1.632             | -                                                             | -          | -                 | -              | -          | -                 | -              | -          | -                                                | -              | -          | -                 | -              | -          | -                 |
| 5.8) ORDALT WMSL                                                                                  | A     |                | -              | -          | 0.770             | -                                                             | -          | -                 | -              | -          | -                 | -              | -          | -                                                | -              | -          | -                 | -              | -          | -                 |
| 5.9) ILS/TEST SPT WMSL                                                                            | A     |                | -              | -          | 2.023             | -                                                             | -          | -                 | -              | -          | 0.178             | -              | -          | 0.048                                            | -              | -          | -                 | -              | -          | 0.048             |
| Subtotal: 5) CG005 MK 46/MK 20 OPTICAL SIGHT                                                      |       |                | -              | -          | 21.935            | -                                                             | -          | 1.915             | -              | -          | 1.900             | -              | -          | 5.779                                            | -              | -          | -                 | -              | -          | 5.779             |
| 6) CG006 COMBAT SYSTEM INTEGRATION                                                                |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            |                                                  |                |            |                   |                |            |                   |
| 6.1) CSI <sup>(8)</sup>                                                                           | A     |                | -              | -          | 14.730            | -                                                             | -          | 1.031             | -              | -          | 1.045             | -              | -          | 2.856                                            | -              | -          | -                 | -              | -          | 2.856             |
| Subtotal: 6) CG006 COMBAT SYSTEM INTEGRATION                                                      |       |                | -              | -          | 14.730            | -                                                             | -          | 1.031             | -              | -          | 1.045             | -              | -          | 2.856                                            | -              | -          | -                 | -              | -          | 2.856             |
| 7) CG007 MULTI-MODE RADAR                                                                         |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            |                                                  |                |            |                   |                |            |                   |
| 7.1) MMR SYSTEM <sup>(†)</sup>                                                                    | A     |                | -              | -          | -                 | 8,569K                                                        | 1          | 8.569             | 8,680K         | 1          | 8.680             | 8,845K         | 1          | 8.845                                            | -              | -          | -                 | 8,845K         | 1          | 8.845             |
| 7.2) MMR INTEGRATION <sup>(9)</sup>                                                               | A     |                | -              | -          | -                 | -                                                             | -          | 8.568             | -              | -          | 2.720             | -              | -          | -                                                | -              | -          | -                 | -              | -          | -                 |
| 7.3) MMR ILS/TEST SUPPORT <sup>(10)</sup>                                                         | A     |                | -              | -          | -                 | -                                                             | -          | 0.773             | -              | -          | 0.992             | -              | -          | 1.797                                            | -              | -          | -                 | -              | -          | 1.797             |
| Subtotal: 7) CG007 MULTI-MODE RADAR                                                               |       |                | -              | -          | 0.000             | -                                                             | -          | 17.910            | -              | -          | 12.392            | -              | -          | 10.642                                           | -              | -          | -                 | -              | -          | 10.642            |
| 8) CG008 ATHENA CCD                                                                               |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            |                                                  |                |            |                   |                |            |                   |
| 8.1) ATHENA CCD INTEGRATION <sup>(11)</sup>                                                       | A     |                | -              | -          | -                 | -                                                             | -          | 7.039             | -              | -          | 0.526             | -              | -          | 2.563                                            | -              | -          | -                 | -              | -          | 2.563             |
| 8.2) ATHENA TI-16 CPS/CDS                                                                         | A     |                | -              | -          | -                 | -                                                             | -          | -                 | -              | -          | -                 | -              | -          | 1.480                                            | -              | -          | -                 | -              | -          | 1.480             |
| Subtotal: 8) CG008 ATHENA CCD                                                                     |       |                | -              | -          | 0.000             | -                                                             | -          | 7.039             | -              | -          | 0.526             | -              | -          | 4.043                                            | -              | -          | -                 | -              | -          | 4.043             |
| 9) OPC C4I <sup>(12)</sup>                                                                        |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            |                                                  |                |            |                   |                |            |                   |
| 9.1) CRYPTO <sup>(†)</sup>                                                                        | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 62,000.00      | 1          | 0.062             | 62,000.00      | 1          | 0.062                                            | -              | -          | -                 | 62,000.00      | 1          | 0.062             |
| 9.2) C2P <sup>(13)(†)</sup>                                                                       | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 1,215K         | 1          | 1.215             | 1,134K         | 2          | 2.268                                            | -              | -          | -                 | 1,134K         | 2          | 2.268             |
| 9.3) ARC-210 <sup>(†)</sup>                                                                       | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 295,909.09     | 11         | 3.255             | 283,606.06     | 11         | 3.120                                            | -              | -          | -                 | 283,606.06     | 11         | 3.120             |
| 9.4) OE-570A <sup>(†)</sup>                                                                       | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 443,000.00     | 1          | 0.443             | 413,000.00     | 2          | 0.826                                            | -              | -          | -                 | 413,000.00     | 2          | 0.826             |
| 9.5) OA-9277A <sup>(†)</sup>                                                                      | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 293,000.00     | 1          | 0.293             | 277,000.00     | 3          | 0.831                                            | -              | -          | -                 | 277,000.00     | 3          | 0.831             |
| 9.6) NAVMACs <sup>(†)</sup>                                                                       | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 333,500.00     | 2          | 0.667             | 333,000.00     | 1          | 0.333                                            | -              | -          | -                 | 333,000.00     | 1          | 0.333             |
| 9.7) FLEET BROADCAST <sup>(14)(†)</sup>                                                           | A     |                | -              | -          | -                 | -                                                             | -          | -                 | 357,000.00     | 1          | 0.357             | 398,000.00     | 8          | 3.184                                            | -              | -          | -                 | 398,000.00     | 8          | 3.184             |
| Subtotal: 9) OPC C4I                                                                              |       |                | -              | -          | 0.000             | -                                                             | -          | -                 | -              | -          | 6.292             | -              | -          | 10.624                                           | -              | -          | -                 | -              | -          | 10.624            |
| Total                                                                                             |       |                | -              | -          | 104.986           | -                                                             | -          | 32.291            | -              | -          | 36.584            | -              | -          | 40.713                                           | -              | -          | -                 | -              | -          | 40.713            |
| Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding. |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            |                                                  |                |            |                   |                |            |                   |
| <sup>(†)</sup> indicates the presence of a P-5a                                                   |       |                |                |            |                   |                                                               |            |                   |                |            |                   |                |            |                                                  |                |            |                   |                |            |                   |



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|------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------|
| <b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2019 Navy |                                                                      | <b>Date:</b> February 2018                              |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 17   | <b>P-1 Line Item Number / Title:</b><br>3620 / Coast Guard Equipment | <b>Aggregated Items Title:</b><br>Coast Guard Equipment |

**Footnotes:**

- (1) Provides the AN/SPQ-9B radar for the Maritime Security Cutter, Large (WMSL) Class, aka the National Security Cutter, to track surface targets and low fliers in support of potential gun engagements.
- (2) IFF Equipment suite for the WPC consists of MK XII equipment, Radar Control Transmitter (RCU), Radar Receiver-Transmitter shipping and installation fixtures which have various unit costs. The IFF AIMS Equipment unit price is an average unit cost for the various components being procured that year.
- (3) IFF Equipment suite for the OPC consists of the RT-1912C, C-12720, AS-177B, AN/APX-123 KIT, AN/UPX-41(C), AN/USM-719, KIV-78 and INCO spares with various unit costs.
- (4) IFF UPX-29A WMSM item name corrected to IFF UPX-46 WMSM
- (5) Non-recurring one time cost for procurement of hardware for the IFF AIMS land-based test site to support the WMSM program.
- (6) FY2019 increase is attributable to (a) additional IFF ILS Test Support for the congressionally added WMSL 759 in FY2019, (b) continuing IFF ILS Test Support for the congressionally added WMSL 758 in FY2018, and (c) the non-recurring cost (\$0.634 million) for a critical field change update for WMSL 750 to 755 (NSC 1 to 6) to avoid future costs and problems associated with hardware and software obsolescence.
- (7) FY2018 BEWT funds support engineering efforts associated with WMSL 757 system installation, inspection, and acceptance.
- (8) FY2019 Combat System Integration increase is attributable (1) to support Combat System Integration of the first delivery of the Multi-Mode Radar in FY2019 (December 2018), (2) to support Combat System Integration of the ATHENA Control, Correlation & Display (CCD) System on OPCs in FY2019, and (3) for the Installation and Information Assurance (IA) Certification of the FY2019 Hardware Procurement for the IFF AIMS Land-Based Test Site in support of the WMSM Program.
- (9) The Multi-Mode Radar (MMR) integration efforts include the software upgrade to correlate radar video tracks and IFF information and the detail design of the IFF antenna onto the MMR antenna hardware integration to include drawing updates and technical publications.
- (10) FY19 MMR ILS/TEST SUPPORT increase is attributable to the installation costs of the Multi-Mode Radar (MMR) in FY19. Each MMR delivery has an associated installation cost separate from the baseline ILS/TEST SUPPORT that supports the MMR Program, with FY19 the first year of MMR delivery.
- (11) The Combat System Control and Display OPC integration supports hardware and software integration of the Technical Insertion (TI)-16 Common Display System for the Multi-Mode Radar, IFF and to provide data to the MK48 Gun Weapon System for target engagement. Includes safety, certification, technical documentation, and information assurance efforts.
- (12) No associated equipment installation costs across the FYDP USCG will install the C4I systems. Procurements provide assets for OPC Hulls #1 through Hull #9 across the FYDP.
- (13) FY18 C2P unit cost changed as a result of an erroneous ship count. The C2P unit is being procured for only one ship in FY18, and this C2P variant is upgraded to a Tech Refresh Unit with LINK-22 capability.
- (14) FY 2019 Fleet Broadcast (SSR-1) increase in unit cost and quantities from FY18 to FY19 is attributed to additional integration costs of 4 separate components spread over 8 separate hardware units. Total quantity of 9 systems meets the inventory objective for Hulls 1-9.

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| <b>Exhibit P-5a, Procurement History and Planning: PB 2019 Navy</b>              |             |                      |                                     |                                                                      |                 |               |                              |               | <b>Date:</b> February 2018                        |                        |                               |                   |
|----------------------------------------------------------------------------------|-------------|----------------------|-------------------------------------|----------------------------------------------------------------------|-----------------|---------------|------------------------------|---------------|---------------------------------------------------|------------------------|-------------------------------|-------------------|
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 17 |             |                      |                                     | <b>P-1 Line Item Number / Title:</b><br>3620 / Coast Guard Equipment |                 |               |                              |               | <b>Aggregated Items:</b><br>Coast Guard Equipment |                        |                               |                   |
| Item Number / Title [DODIC]                                                      | O<br>C<br>O | FY                   | Contractor and Location             | Method/Type<br>or<br>Funding Vehicle                                 | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$)                                 | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
| <b>2) IFF AIMS</b>                                                               |             |                      |                                     |                                                                      |                 |               |                              |               |                                                   |                        |                               |                   |
| 2.4) IFF AIMS EQUIPMENT WPC<br>(2)                                               |             | 2017                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2017      | Jul 2018                     | 3             | 103,250.00                                        | Y                      |                               | Dec 2015          |
| 2.4) IFF AIMS EQUIPMENT WPC<br>(2)                                               |             | 2018                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2018      | Jul 2019                     | 3             | 142,500.00                                        | Y                      |                               | Dec 2015          |
| 2.4) IFF AIMS EQUIPMENT WPC<br>(2)                                               |             | 2019                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2019      | Jul 2020                     | 3             | 106,000.00                                        | Y                      |                               | Dec 2015          |
| 2.5) IFF EQUIPMENT/INCO<br>SPARES WMSM <sup>(3)</sup>                            |             | 2017                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2017      | Jul 2018                     | 1             | 110,000.00                                        | Y                      |                               | Dec 2015          |
| 2.5) IFF EQUIPMENT/INCO<br>SPARES WMSM <sup>(3)</sup>                            |             | 2018                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2018      | Jul 2019                     | 1             | 477,000.00                                        | Y                      |                               | Dec 2015          |
| 2.5) IFF EQUIPMENT/INCO<br>SPARES WMSM <sup>(3)</sup>                            |             | 2019                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2019      | Jul 2020                     | 1             | 509,000.00                                        | Y                      |                               | Dec 2015          |
| 2.6) IFF UPX-46 WMSM <sup>(4)</sup>                                              |             | 2017                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2017      | Jul 2018                     | 1             | 912,000.00                                        | Y                      |                               | Dec 2015          |
| 2.6) IFF UPX-46 WMSM <sup>(4)</sup>                                              |             | 2018                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2018      | Jul 2019                     | 1             | 929,000.00                                        | Y                      |                               | Dec 2015          |
| 2.6) IFF UPX-46 WMSM <sup>(4)</sup>                                              |             | 2019                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2019      | Jul 2020                     | 1             | 947,000.00                                        | Y                      |                               | Dec 2015          |
| 2.9) IFF AIMS WMSL                                                               |             | 2018                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2018      | Jul 2019                     | 1             | 477,000.00                                        | Y                      |                               | Dec 2016          |
| 2.10) IFF AIMS UPX-29 LLT WMSL                                                   |             | 2018                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAVAIR          | Jan 2018      | Jul 2019                     | 1             | 929,000.00                                        | Y                      |                               | Dec 2016          |
| 2.12) IFF AIMS SUPPORT<br>EQUIPMENT WMSL                                         |             | 2017                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAWCAD          | Jan 2017      | Jan 2018                     | 1             | 96,000.00                                         | Y                      |                               | Dec 2015          |
| 2.12) IFF AIMS SUPPORT<br>EQUIPMENT WMSL                                         |             | 2019                 | NAVAIR NAWC/AD<br>/ ST. INIGOES, MD | WR                                                                   | NAWCAD          | Oct 2018      | Oct 2019                     | 3             | 96,000.00                                         | Y                      |                               | Dec 2015          |
| <b>3) CG003 DECOYS MK 53</b>                                                     |             |                      |                                     |                                                                      |                 |               |                              |               |                                                   |                        |                               |                   |
| 3.1) MK53 MOD 6/10 DLS WMSM                                                      |             | 2017                 | BAES / AUSTRALIA                    | C / FP                                                               | NAVSEA          | Mar 2017      | Jul 2018                     | 1             | 1,208K                                            | Y                      |                               | Jan 2016          |
| 3.1) MK53 MOD 6/10 DLS WMSM                                                      |             | 2018                 | BAES / AUSTRALIA                    | C / FP                                                               | NAVSEA          | Mar 2018      | Jul 2019                     | 1             | 1,231K                                            | Y                      |                               | Jul 2017          |
| 3.1) MK53 MOD 6/10 DLS WMSM                                                      |             | 2019                 | BAES / AUSTRALIA                    | C / TBD                                                              | NAVSEA          | Mar 2019      | Jul 2020                     | 1             | 1,254K                                            | Y                      |                               | Jul 2017          |
| 3.2) MK53 MOD 6/10 DLS WMSL                                                      |             | 2018                 | BAES / AUSTRALIA                    | C / FP                                                               | NAVSEA          | Mar 2018      | Mar 2018                     | 1             | 1,231K                                            | Y                      |                               | Sep 2016          |
| <b>5) CG005 MK 46/MK 20 OPTICAL SIGHT</b>                                        |             |                      |                                     |                                                                      |                 |               |                              |               |                                                   |                        |                               |                   |
| 5.1) MK20 (EOSS) OPC                                                             |             | 2017                 | L3 KEO / NORTHAMPTON, MA            | SS / FP                                                              | NAVSEA          | Aug 2017      | Feb 2019                     | 1             | 1,690K                                            | Y                      |                               | Jan 2016          |
| 5.1) MK20 (EOSS) OPC                                                             |             | 2019 <sup>(15)</sup> | L3 KEO / NORTHAMPTON, MA            | SS / FP                                                              | NAVSEA          | Apr 2019      | Oct 2020                     | 3             | 1,755K                                            | Y                      |                               | Jan 2016          |
| 5.4) MK 46/MK 20 WMSL                                                            |             | 2018                 | L3 KEO / NORTHAMPTON, MA            | SS / FP                                                              | NAVSEA          | Apr 2018      | Apr 2020                     | 1             | 1,722K                                            | Y                      |                               | Sep 2016          |

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|----------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------|--|--|--|---------------------------------------------------|--|--|--|
| <b>Exhibit P-5a, Procurement History and Planning:</b> PB 2019 Navy              |  |  |  |                                                                      |  |  |  | <b>Date:</b> February 2018                        |  |  |  |
| <b>Appropriation / Budget Activity / Budget Sub Activity:</b><br>1810N / 02 / 17 |  |  |  | <b>P-1 Line Item Number / Title:</b><br>3620 / Coast Guard Equipment |  |  |  | <b>Aggregated Items:</b><br>Coast Guard Equipment |  |  |  |

| Item Number / Title [DODIC]          | O<br>C<br>O | FY                   | Contractor and Location                | Method/Type<br>or<br>Funding Vehicle | Location of PCO | Award<br>Date | Date<br>of First<br>Delivery | Qty<br>(Each) | Unit Cost<br>(\$) | Specs<br>Avail<br>Now? | Date<br>Revision<br>Available | RFP Issue<br>Date |
|--------------------------------------|-------------|----------------------|----------------------------------------|--------------------------------------|-----------------|---------------|------------------------------|---------------|-------------------|------------------------|-------------------------------|-------------------|
| <b>7) CG007 MULTI-MODE RADAR</b>     |             |                      |                                        |                                      |                 |               |                              |               |                   |                        |                               |                   |
| 7.1) MMR SYSTEM                      |             | 2017 <sup>(16)</sup> | SAAB USA / Syracuse, NY, USA           | C / FFP                              | NAVSEA          | Sep 2017      | Dec 2018                     | 1             | 8,569K            | Y                      |                               | Oct 2016          |
| 7.1) MMR SYSTEM                      |             | 2018 <sup>(17)</sup> | SAAB USA / Syracuse, NY, USA           | C / FP                               | NAVSEA          | Feb 2018      | Jun 2019                     | 1             | 8,680K            | Y                      |                               | Oct 2016          |
| 7.1) MMR SYSTEM                      |             | 2019 <sup>(18)</sup> | SAAB USA / Syracuse, NY, USA           | C / TBD                              | NAVSEA          | Mar 2019      | May 2020                     | 1             | 8,845K            | Y                      |                               | Oct 2016          |
| <b>9) OPC C4I</b>                    |             |                      |                                        |                                      |                 |               |                              |               |                   |                        |                               |                   |
| 9.1) CRYPTO                          |             | 2018                 | SSC LANT / Charleston, SC              | C / IDIQ                             | SSC LANT        | Mar 2018      | Mar 2019                     | 1             | 62,000.00         | Y                      |                               |                   |
| 9.1) CRYPTO                          |             | 2019                 | SSC LANT / Charleston, SC              | C / IDIQ                             | SSC LANT        | Mar 2019      | Mar 2020                     | 1             | 62,000.00         | Y                      |                               |                   |
| 9.2) C2P <sup>(13)</sup>             |             | 2018                 | NEIF (Lockheed) / San Diego            | C / CPFF                             | SPAWAR          | Jan 2018      | Jul 2019                     | 1             | 1,215K            | Y                      |                               |                   |
| 9.2) C2P <sup>(13)</sup>             |             | 2019                 | NEIF (Lockheed) / San Diego            | C / CPFF                             | SPAWAR          | Jan 2019      | Jul 2020                     | 2             | 1,134K            | Y                      |                               |                   |
| 9.3) ARC-210                         |             | 2018                 | Rockwell Collins / Cedar Rapids, IA    | C / FFP                              | NAWCAD          | Jan 2018      | Jul 2019                     | 11            | 295,909.09        | Y                      |                               |                   |
| 9.3) ARC-210                         |             | 2019                 | Rockwell Collins / Cedar Rapids, IA    | C / FFP                              | NAWCAD          | Jan 2019      | Jul 2020                     | 11            | 283,606.06        | Y                      |                               |                   |
| 9.4) OE-570A                         |             | 2018                 | Trivec Avant / Huntington Beach, CA    | C / FFP                              | SPAWAR          | Mar 2018      | Dec 2018                     | 1             | 443,000.00        | Y                      |                               |                   |
| 9.4) OE-570A                         |             | 2019                 | Trivec Avant / Huntington Beach, CA    | C / FFP                              | SPAWAR          | Jan 2019      | Oct 2019                     | 2             | 413,000.00        | Y                      |                               |                   |
| 9.5) OA-9277A                        |             | 2018                 | Rockwell Collins/Cedar Rapids / NAWCAD | C / FFP                              | SSC LANT        | Jan 2018      | Jul 2019                     | 1             | 293,000.00        | Y                      |                               |                   |
| 9.5) OA-9277A                        |             | 2019                 | SSC LANT/Various / Charleston, SC      | C / FFP                              | SSC LANT        | Jan 2019      | Jul 2020                     | 3             | 277,000.00        | Y                      |                               |                   |
| 9.6) NAVMACs                         |             | 2018                 | General Dynamics / Falls Church, VA    | C / FFP                              | SPAWAR          | Jan 2018      | Aug 2018                     | 2             | 333,500.00        | Y                      |                               |                   |
| 9.6) NAVMACs                         |             | 2019                 | TBD / TBD                              | C / FFP                              | SPAWAR          | Jan 2019      | Aug 2019                     | 1             | 333,000.00        | Y                      |                               |                   |
| 9.7) FLEET BROADCAST <sup>(14)</sup> |             | 2018                 | SSC PAC @San Diego / San Diego         | C / FFP                              | SSC PAC         | Jul 2018      | Jan 2019                     | 1             | 357,000.00        | Y                      |                               |                   |
| 9.7) FLEET BROADCAST <sup>(14)</sup> |             | 2019                 | SSC PAC @San Diego / San Diego         | C / FFP                              | SSC PAC         | Jul 2019      | Jan 2020                     | 8             | 398,000.00        | Y                      |                               |                   |

**Footnotes:**

<sup>(15)</sup> The procurement purchase dates to meet the IYNDs for WMEC 1 and OPC 3 in FY 19 is April 2019 and May 2019, respectively. Delivery dates: WMEC 1 OCT- 2021 and OPC 3 NOV -2021. Precise procurement and delivery dates for WMSL is TBD.

<sup>(16)</sup> MFG List Procurement Lead Time for this order is 13 months from end of 2017-09, with scheduled delivery in 2018-12.

<sup>(17)</sup> MFG List Procurement Lead Time for this order is 16 months from end of 2017-09, with scheduled delivery in 2019-06.

<sup>(18)</sup> MFG List's Procurement Lead Time for this order is approximately 15 months, with scheduled delivery of 2020-05.

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